

b

BENSME-ZN/ZQ-A
12/15/20

PARTS BOOK

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Barudan America, Inc.
29500 Fountain Parkway
Solon, Ohio 44139 USA

Part Numbers are subject to change due to continuing improvements.

BENSME-ZN/ZQ-A
BENRME-ZN/ZQ-A
HIGH SPEED AUTOMATIC EMBROIDERY
MACHINE

C o n t e n t s

Page 1

Machine Layout

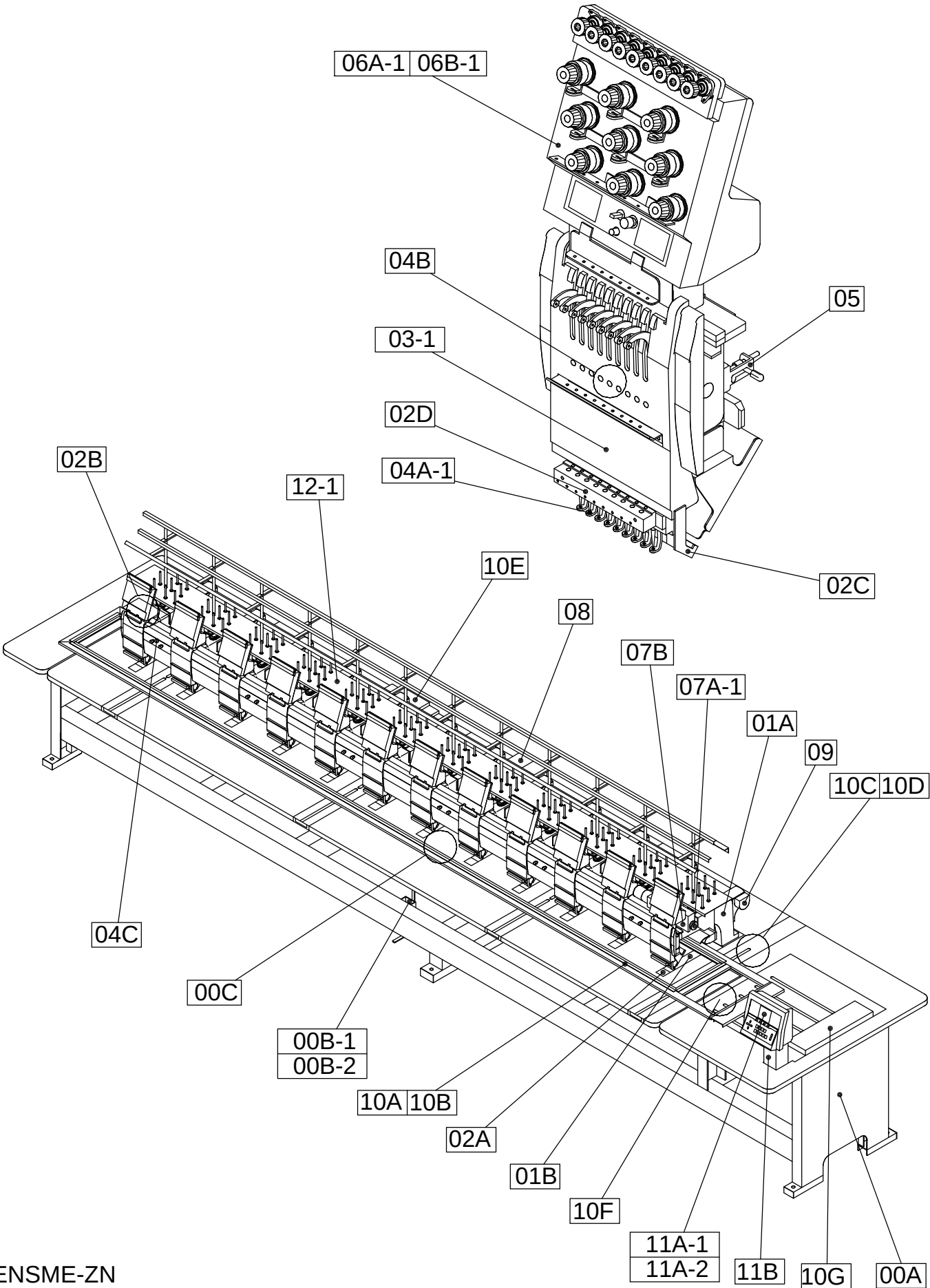
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C o n t e n t s

Page 2

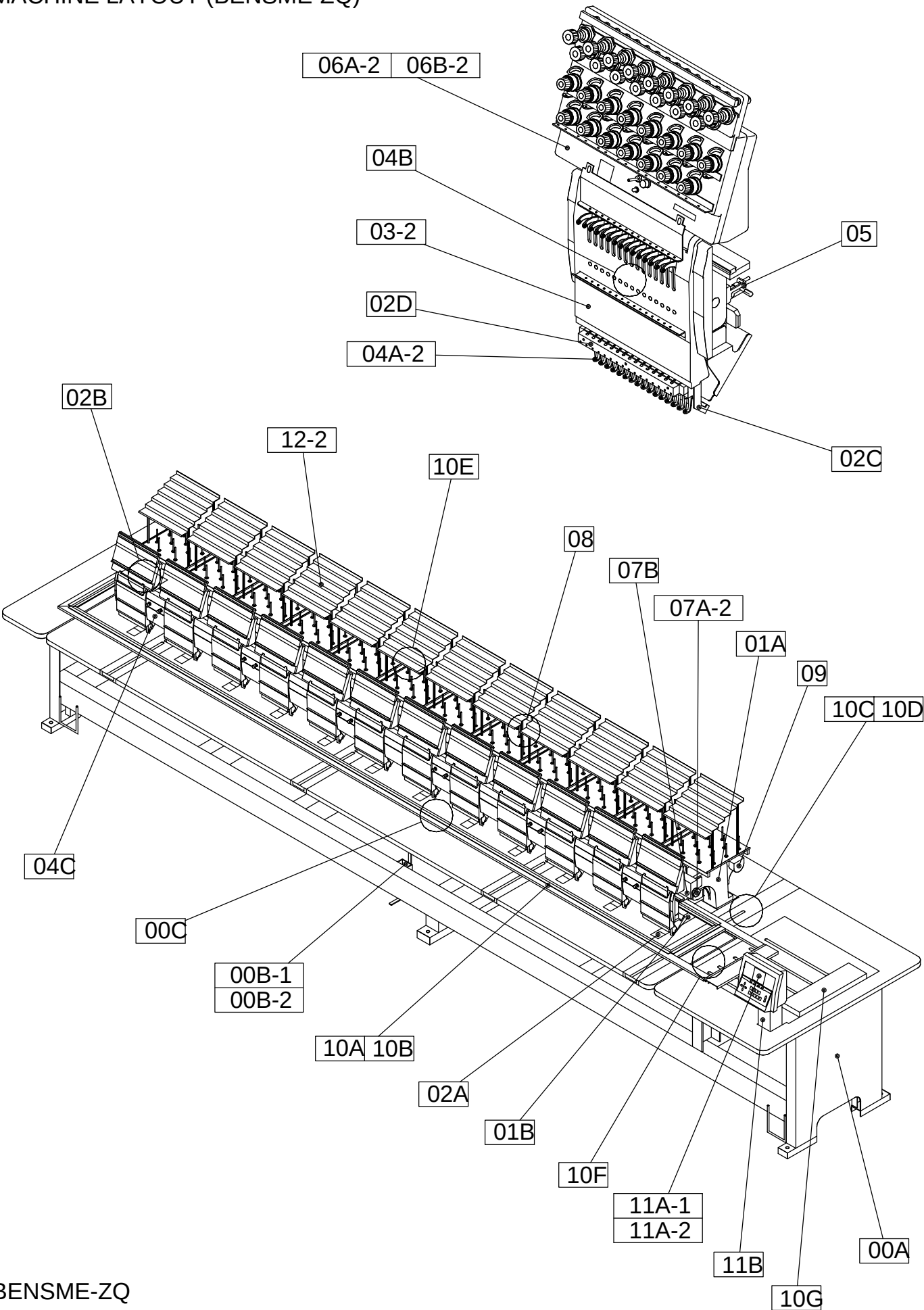
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MACHINE LAYOUT (BENSME-ZN)



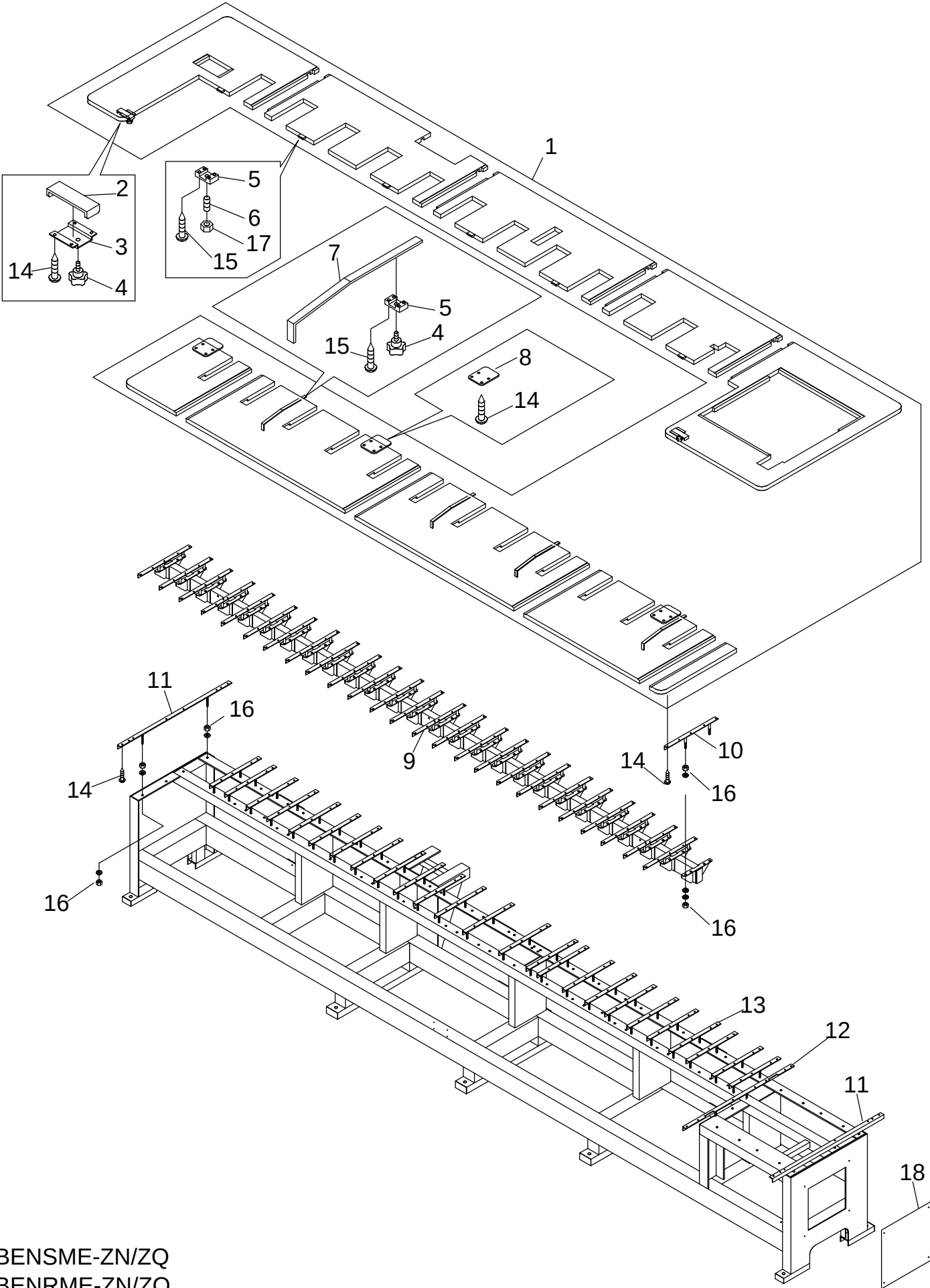
BENSME-ZN
BENRME-ZN

MACHINE LAYOUT (BENSME-ZQ)



BENSME-ZQ
BENRME-ZQ

00A TABLE FRAME A



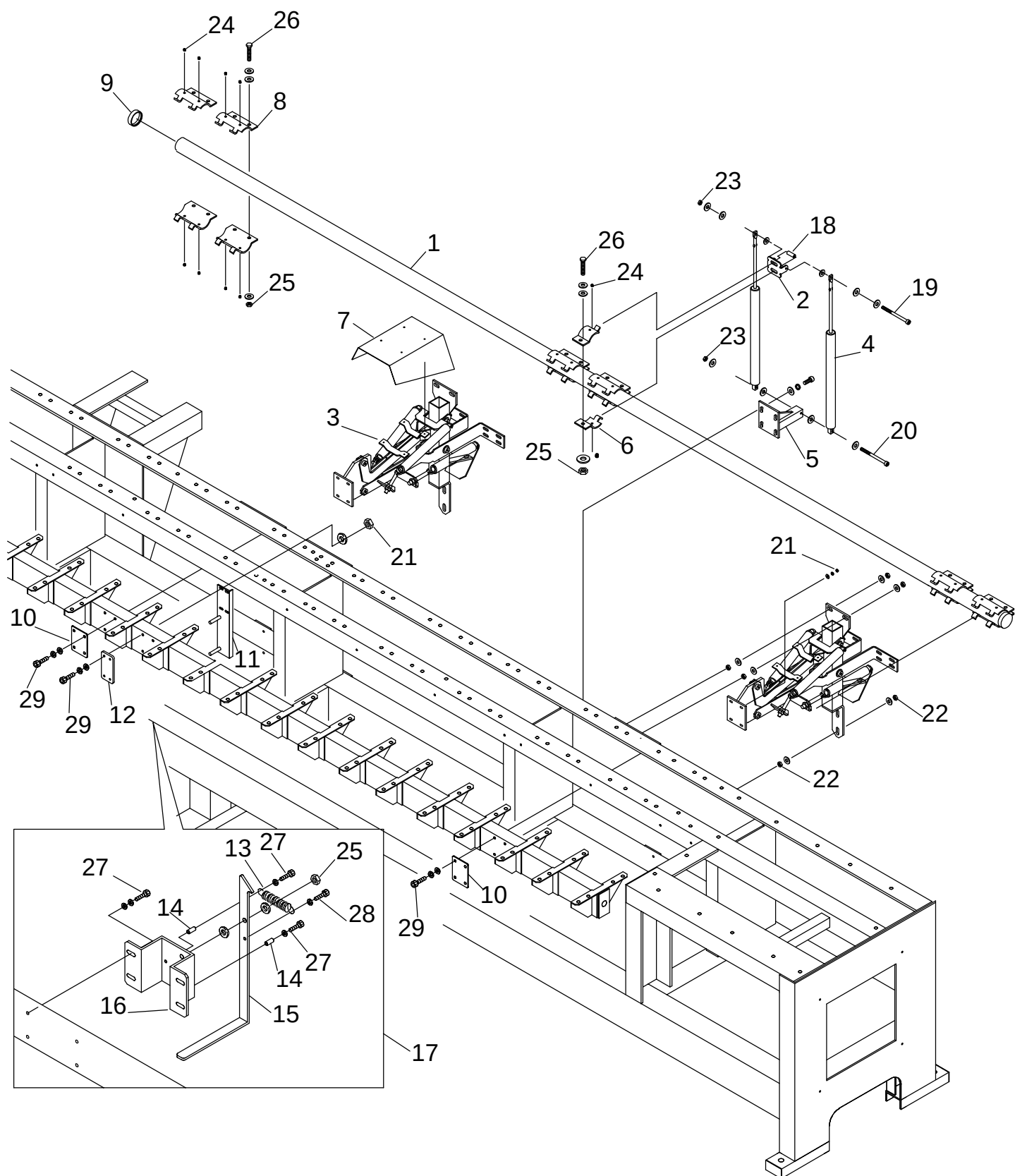
BENSME-ZN/ZQ
BENRME-ZN/ZQ

00A Table Frame A

(*Depends on Machine Type)

[illegible]

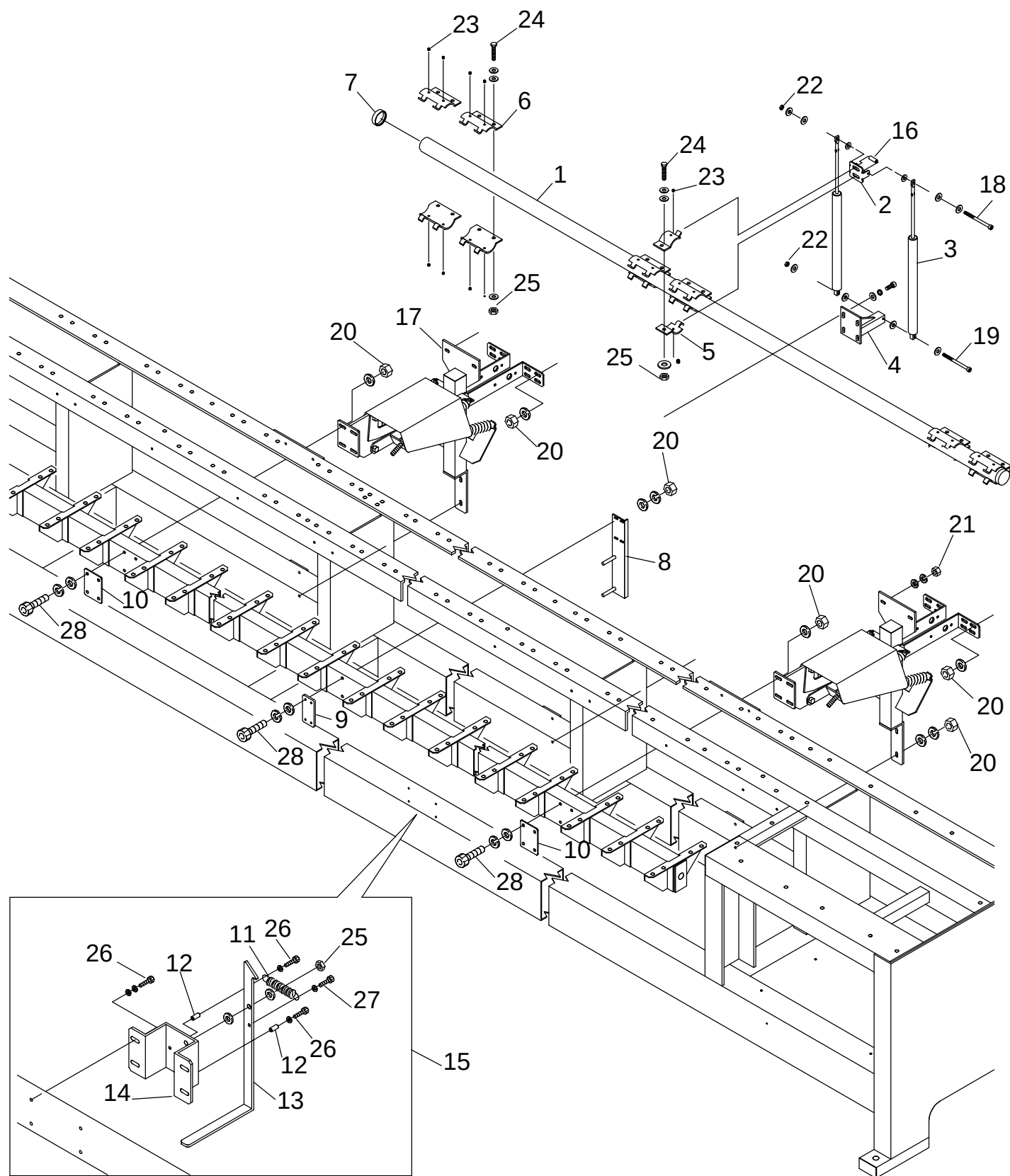
00B-1 TABLE FRAME B (12T)



BENSME-ZN/ZQ
BENRME-ZN/ZQ

00B-1 Table Frame B (12T)[illegible]

00B-2 TABLE FRAME B (15T/ 20T)

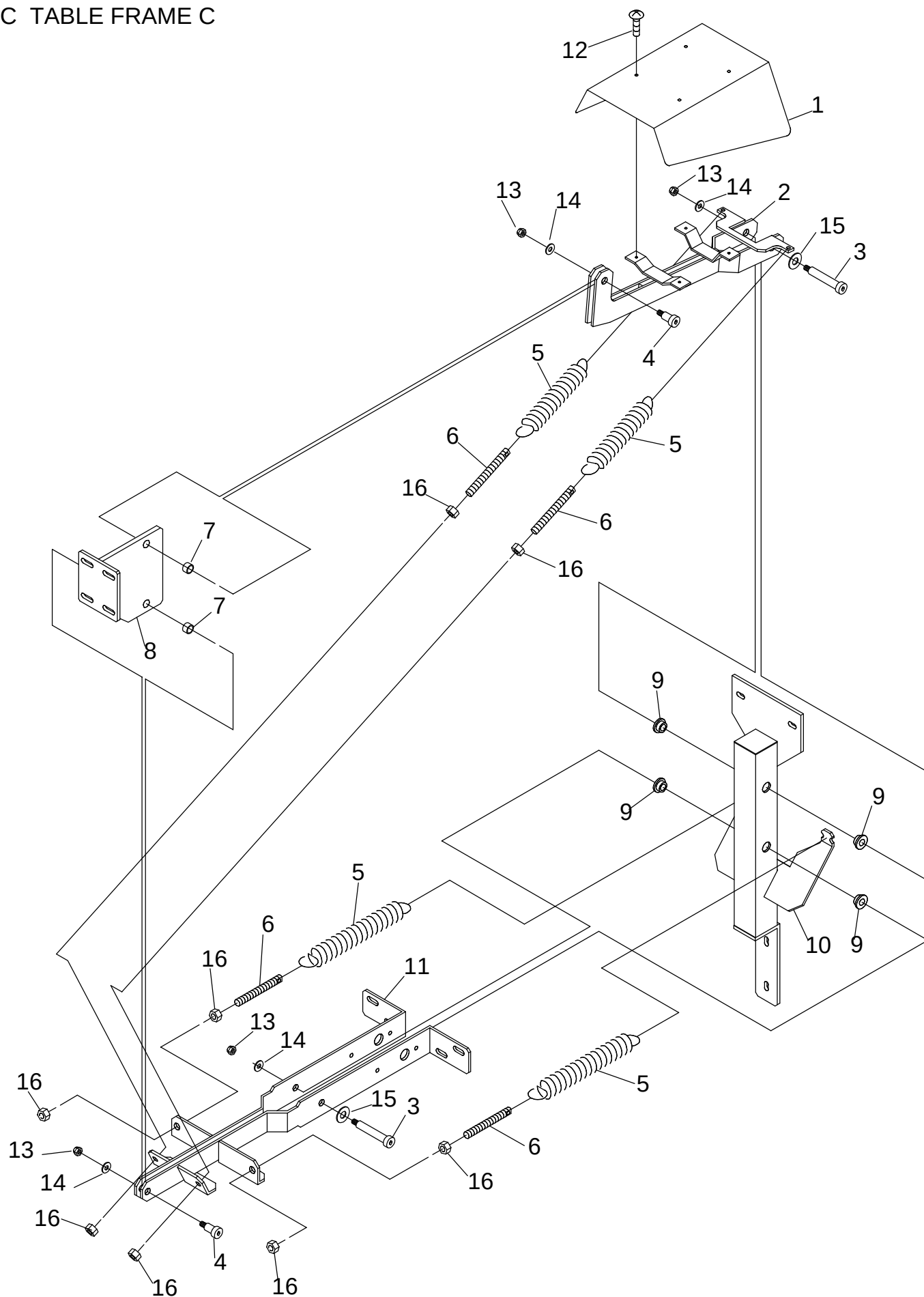


BENSME-ZN/ZQ
BENRME-ZN/ZQ

00B-2 Table Frame B (15T / 20T)

[illegible]

00C TABLE FRAME C



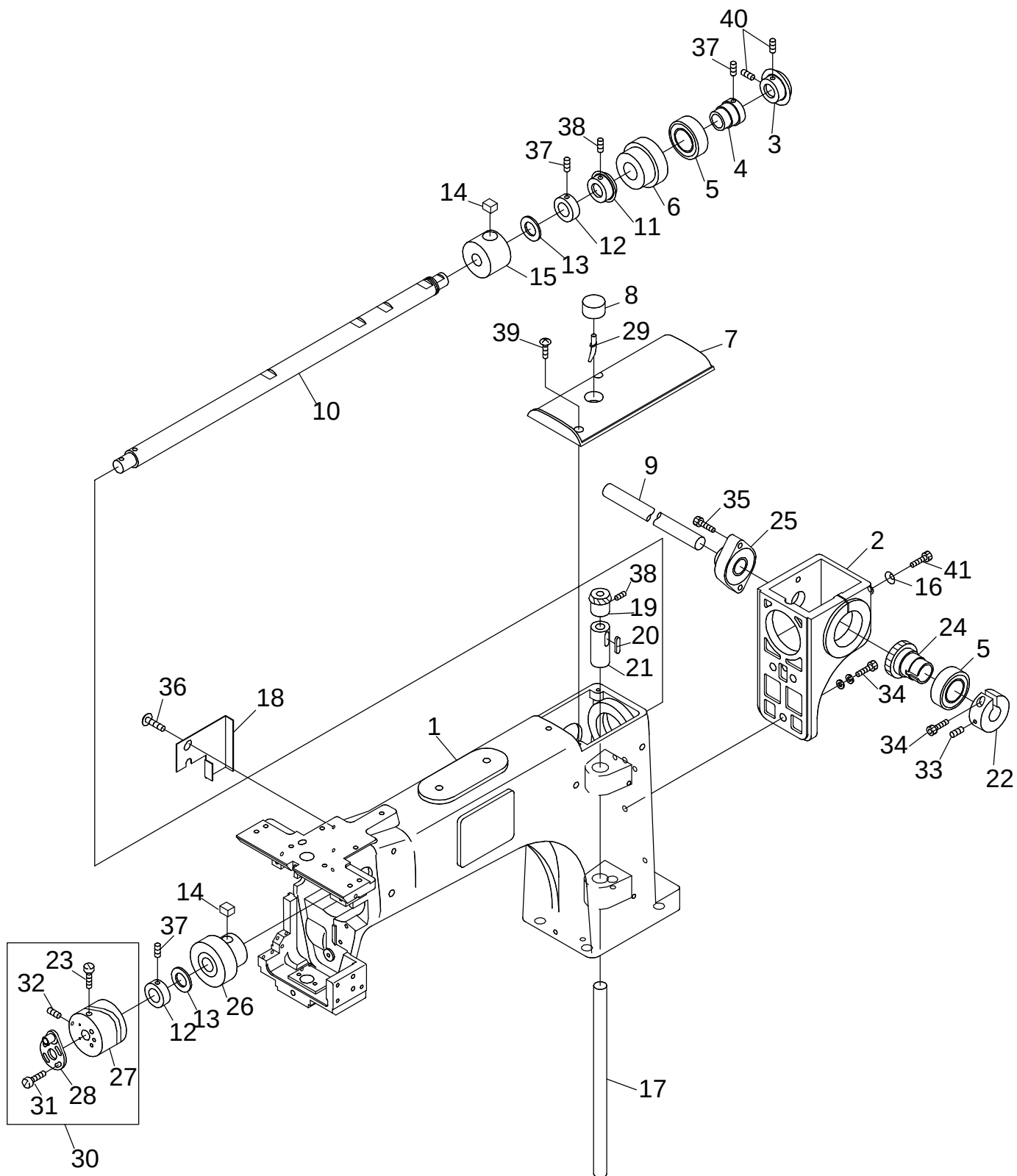
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00C Table Frame C

(S=Set Qty)

[illegible]

01A HEAD BED A



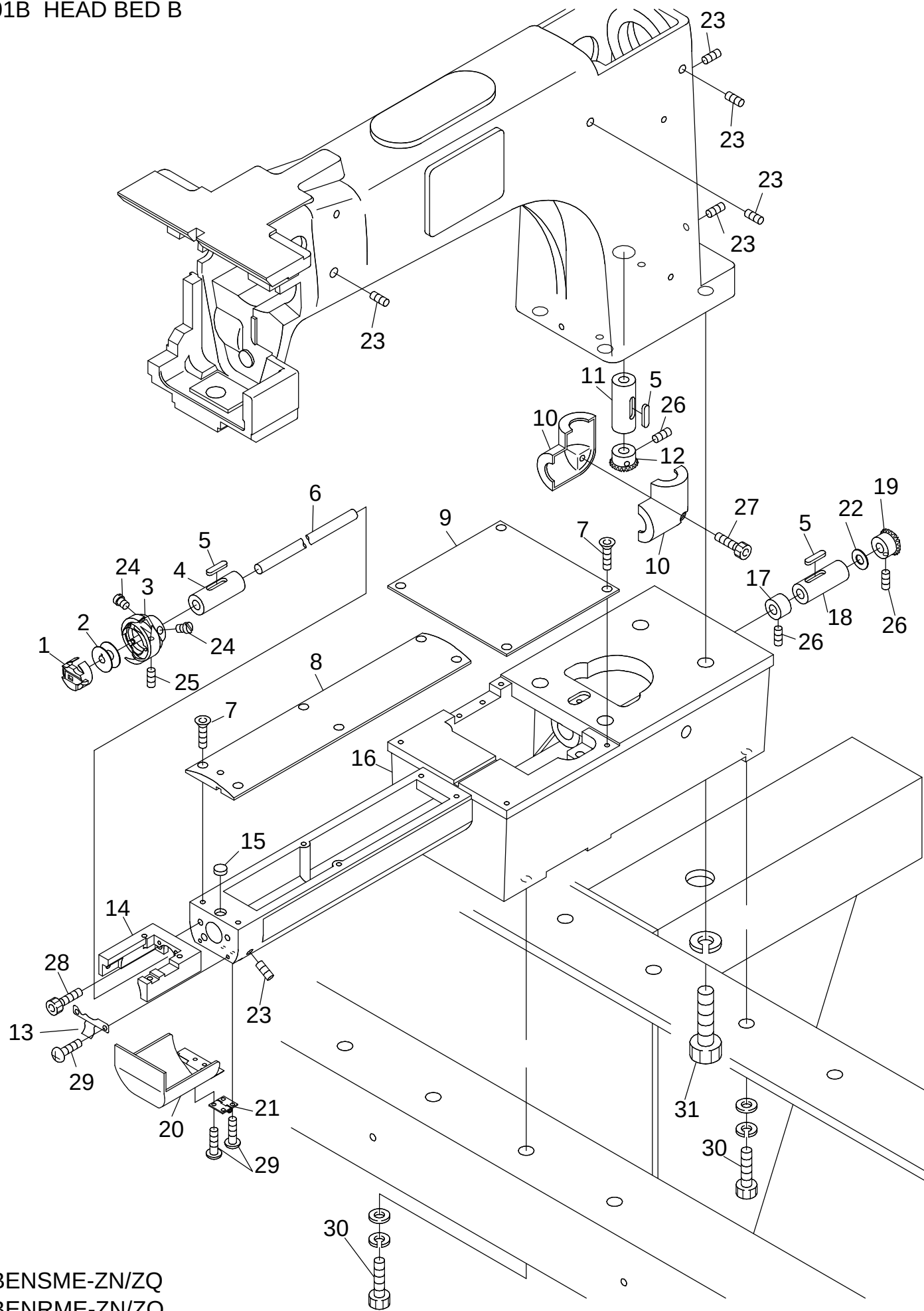
BENSME-ZN/ZQ
BENRME-ZN/ZQ

01A Head-Bed A

(H=Head Qty)

ITEM	LIST NO.	DESCRIPTION	QTY	NOTE
1.	LA210010	Arm (ZN-A)	Hx1	
2.	KL210040	Arm Gear Case	Hx1	
3.	KL220100	Upper Shaft Gear (Spiral Bevel M1.5-25R)	Hx1	
4.	KL220090	Upper Shaft Rear Bearing Collar	Hx1	
5.	A9010017	Bearing (6004ZZ)	Hx2	
6.	KL220040	Upper Shaft Rear Bearing Case	Hx1	
7.	KL250040	Arm Top Cover	Hx1	
8.	KL220150	Oil Felt D	Hx1	
9.	LB310100	Main Shaft, Keyed (15mm X 12') (ZQ/ZNA)	2	Cut Product
10.	KL220000	Upper Shaft	Hx1	
11.	KF220130	Bevel Gear (Upper Shaft)	Hx1	
12.	KL220080	Upper Shaft Collar	Hx2	
13.	HP231390	Thrust Washer (Upper Shaft Gear)	Hx2	
14.	KL220130	Oil Felt B	Hx2	
15.	KL220030	Upper Shaft (Middle Metal)	Hx1	
16.		Disk Spring (M6)		
17.	KL220010	Vertical Shaft	Hx1	
18.	KL250051	Arm Side Cable Cover	Hx1	
19.	KF220460	Bevel Gear (Vertical Shaft Upper)	Hx1	
20.	KL220140	Oil Felt C	Hx1	
21.	KL220050	Vertical Shaft Metal (Upper)	Hx1	
22.	KL320020	Connecting Gear Clamp (19.0 Dia.)	Hx1	
23.	KF230420	Take Up Lever Cam Set Screw	Hx1	
24.	KL320000	Connecting Gear (Spiral Bevel M1.5-25L)	Hx1	
25.	HP321140	Upper Shaft Connecting Unit	Hx1	
26.	KL220020	Upper Shaft Front Metal	Hx1	
27.	KB230030	Take Up Lever Cam (K6)	Hx1	
28.	KB230050	90° Crank	Hx1	
29.	KC251330	Oil Core (L=75)	Hx1	
30.	KB230011	Take Up Cam (K6 Assembly)	Hx1	
31.	A9012007	Bobbin Fixing Screw (SM11/64-40x7)	Hx1	
32.		Set Screw (SM15/64-28x10, with Adhesive)		
33.		Hex Socket Set Screw M6x10		
34.		Hex Socket Bolt M6x25		
35.		Hex Socket Bolt M6x8 (with Spring Washer)		
36.		Truss Screw M4x8		
37.		Hex Socket Set Screw M6x6		
38.		Set Screw (SM1/4-40x4)		
39.		Truss Screw M4x10		
40.		Hex Socket Set Screw M6x6 (with Adhesive)		
41.		Hex Socket Bolt M6x60		

01B HEAD BED B



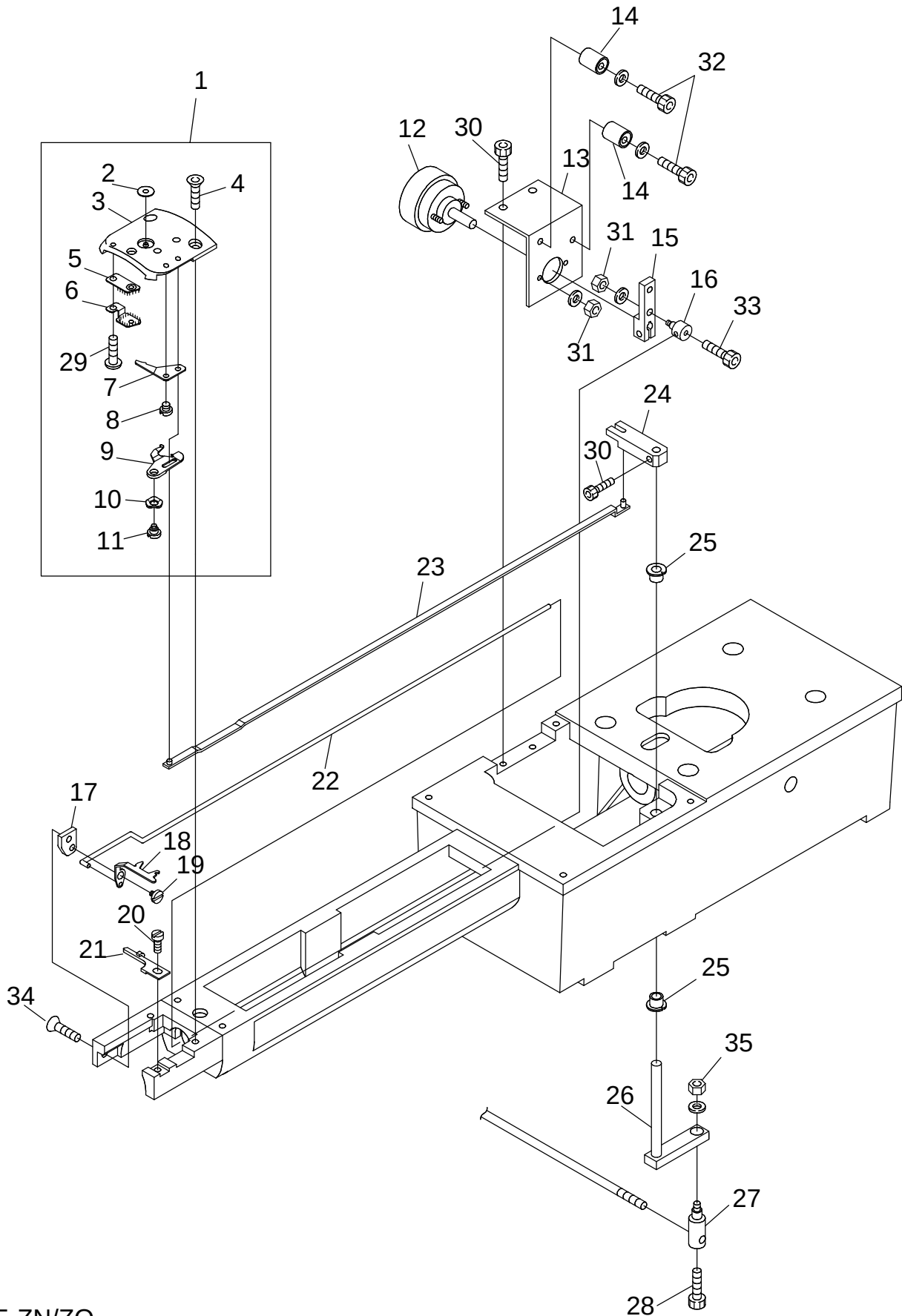
BENSME-ZN/ZQ
BENRME-ZN/ZQ

01B Head-Bed B

(H=Head Qty)

[illegible]

02A THREAD CUT A



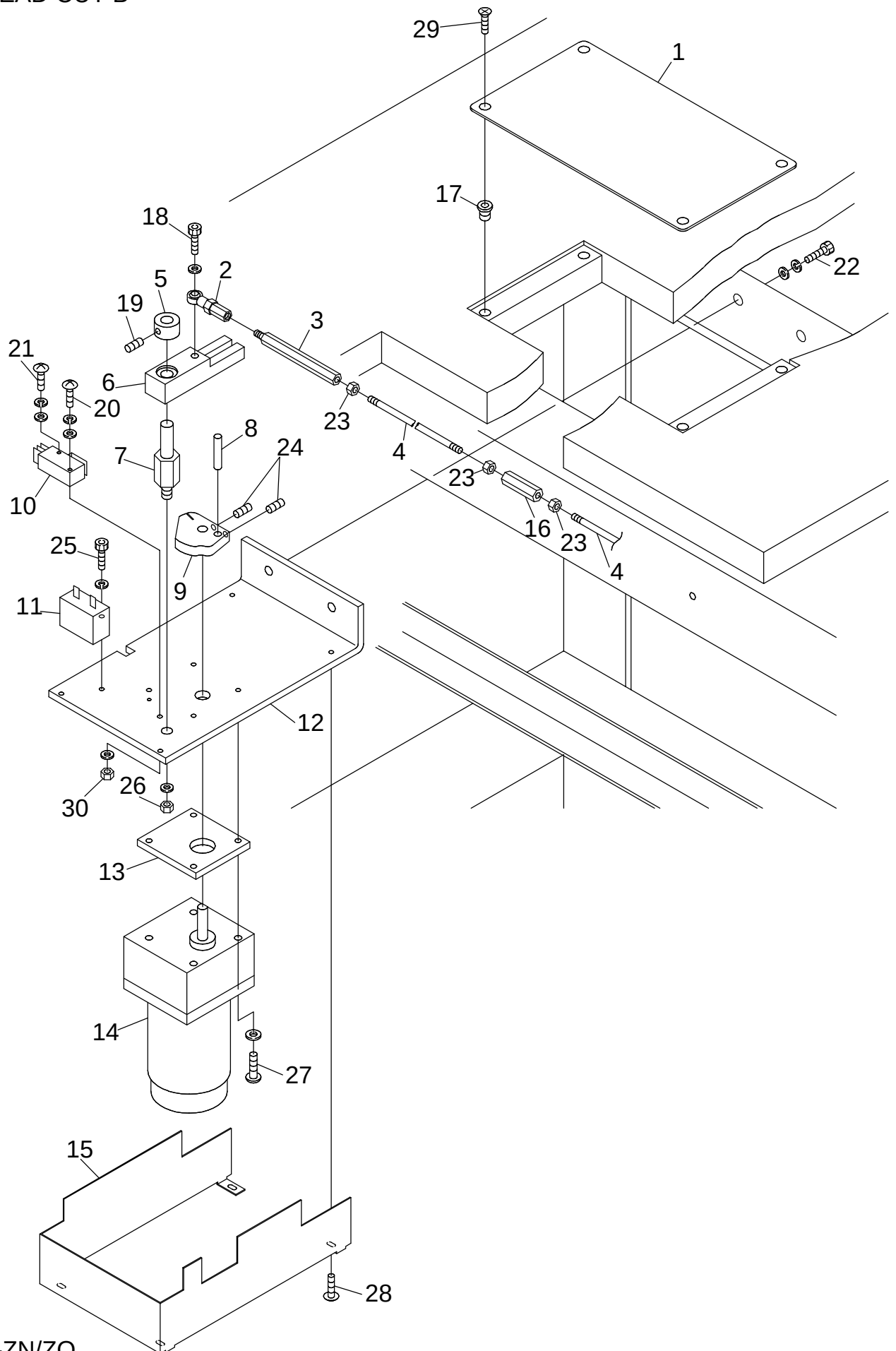
BENSME-ZN/ZQ
BENRME-ZN/ZQ

02A Thread Cut A

(H=Head Qty)

[illegible]

02B THREAD CUT B

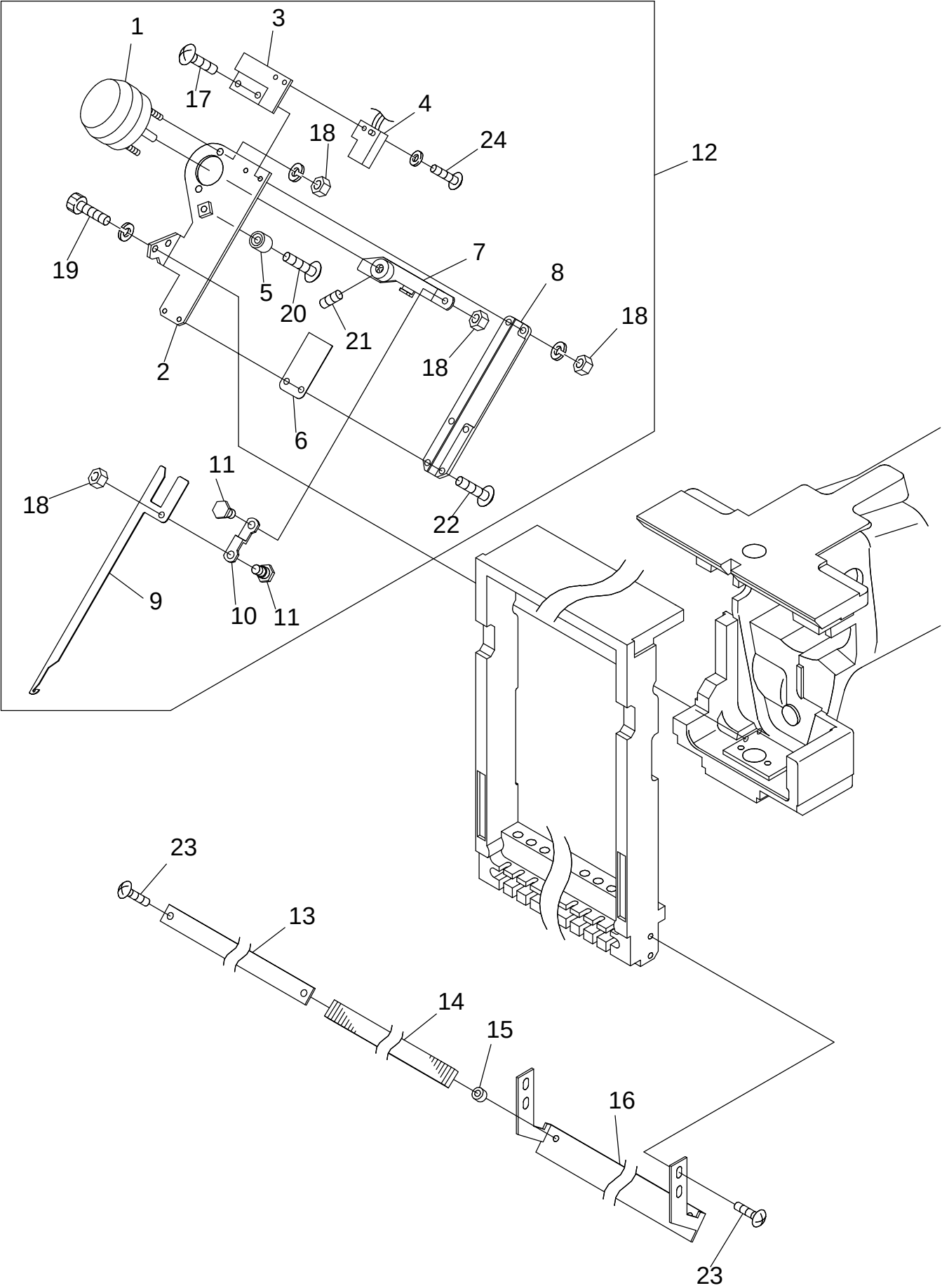


BENSME-ZN/ZQ
BENRME-ZN/ZQ

02B Thread Cut B

[illegible]

02C THREAD CUT C



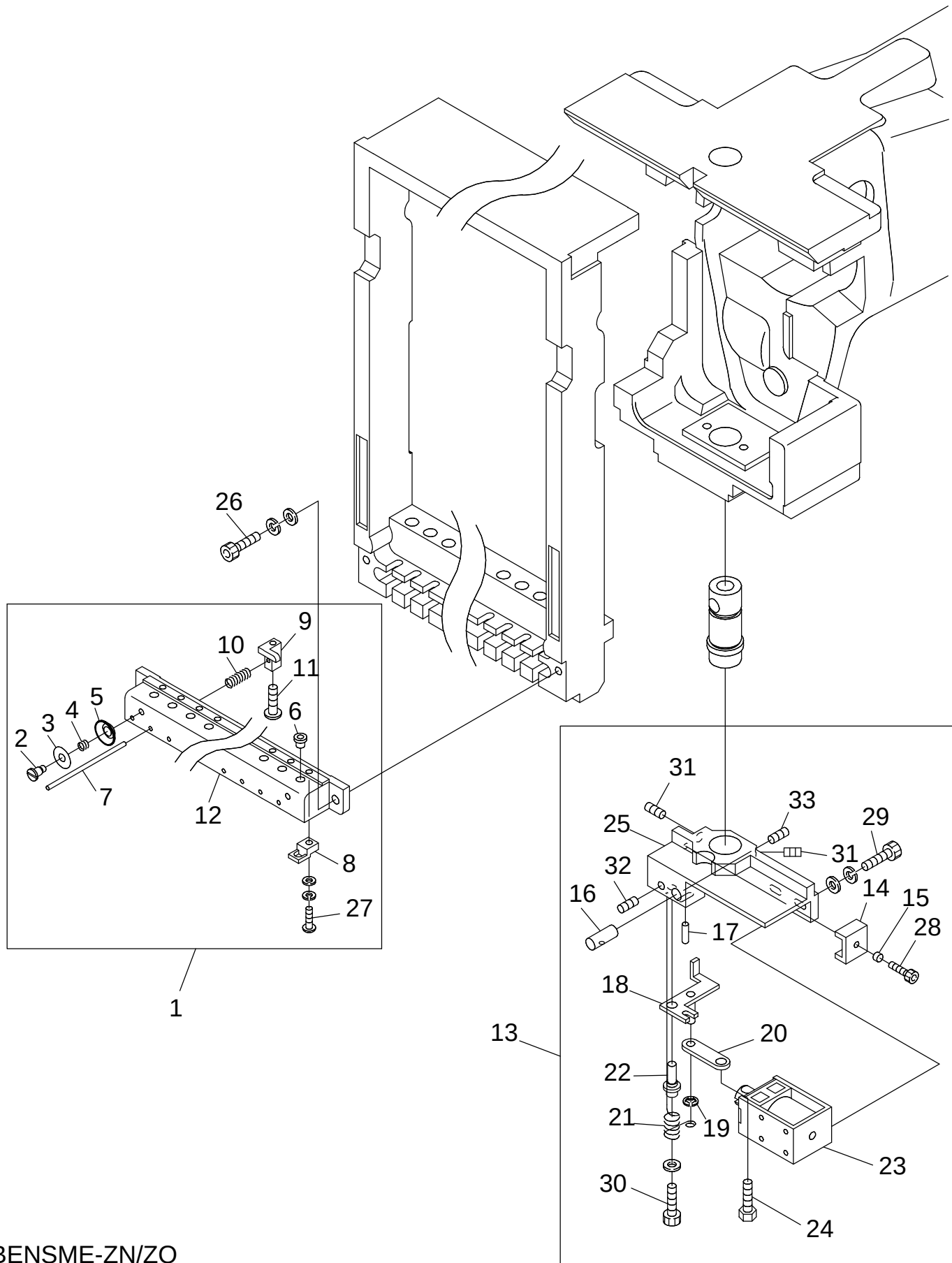
BENSME-ZN/ZQ
BENRME-ZN/ZQ

02C Thread Cut C

(H=Head Qty)

[illegible]

02D THREAD CUT D



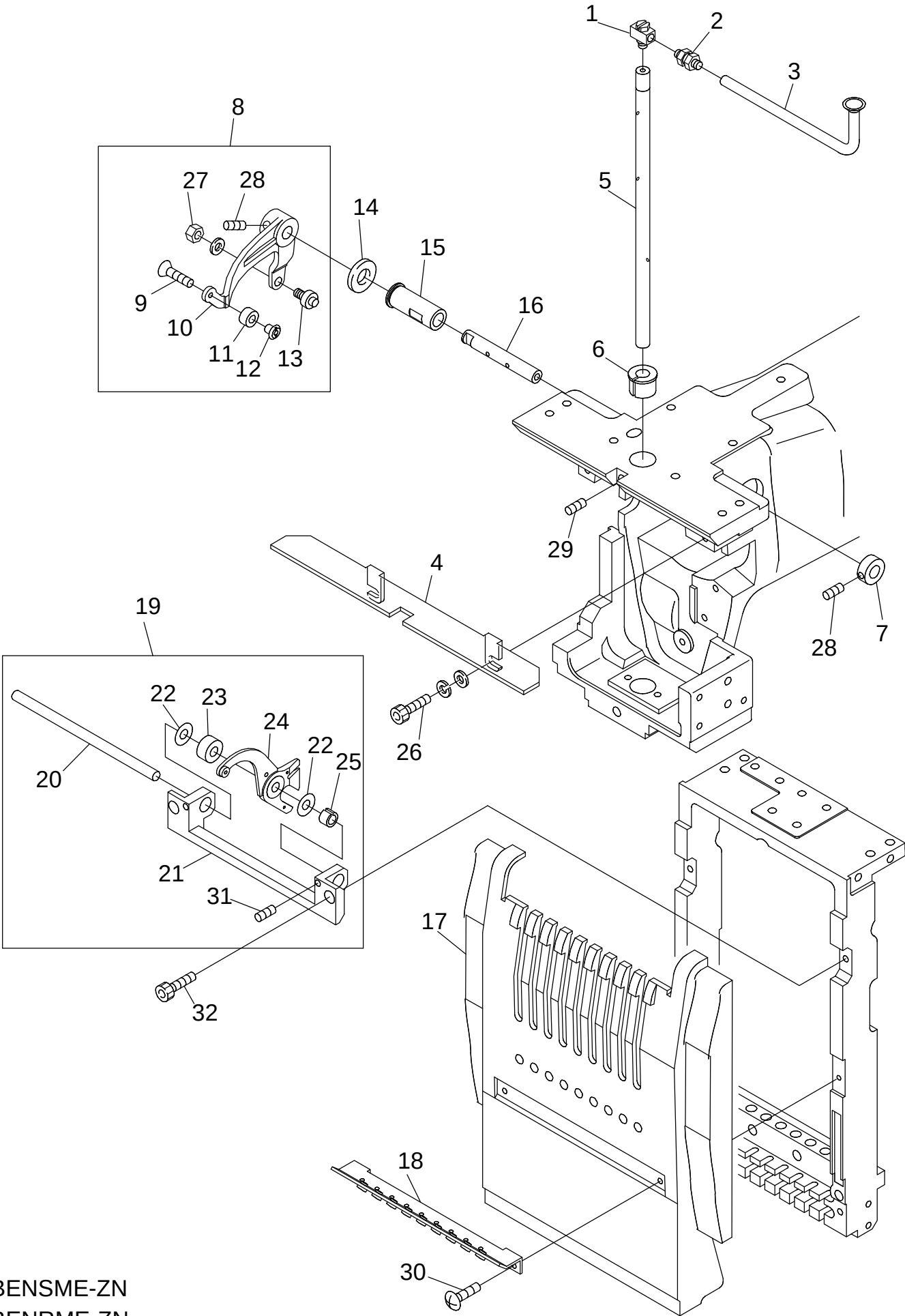
BENSME-ZN/ZQ
BENRME-ZN/ZQ

02D Thread Cut D

(H=Head Qty)

[illegible]

03-1 TAKE UP LEVER (ZN)



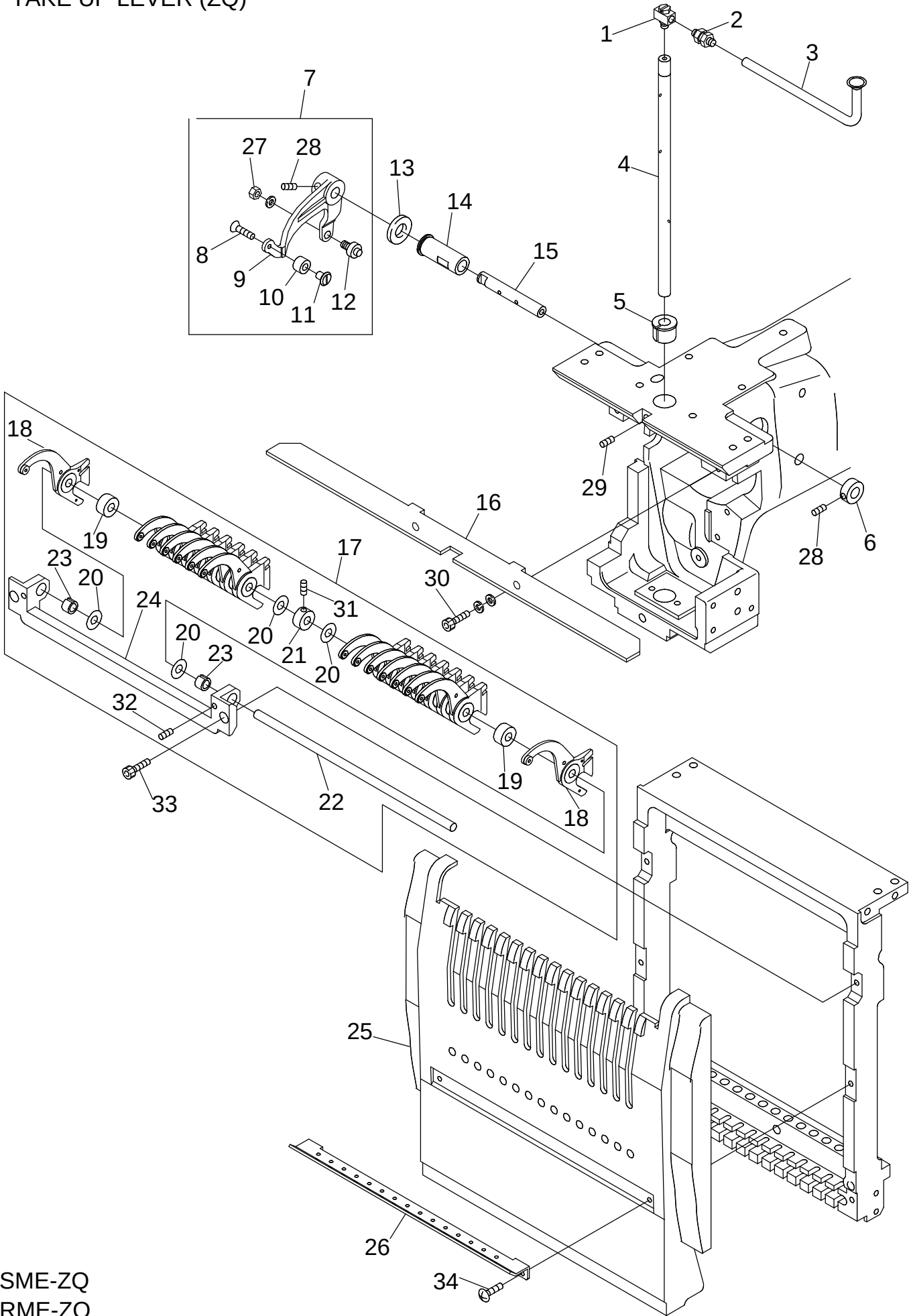
BENSME-ZN
BENRME-ZN

03-1 Take Up Lever (ZN)

(H=Head Qty)

[illegible]

03-2 TAKE UP LEVER (ZQ)



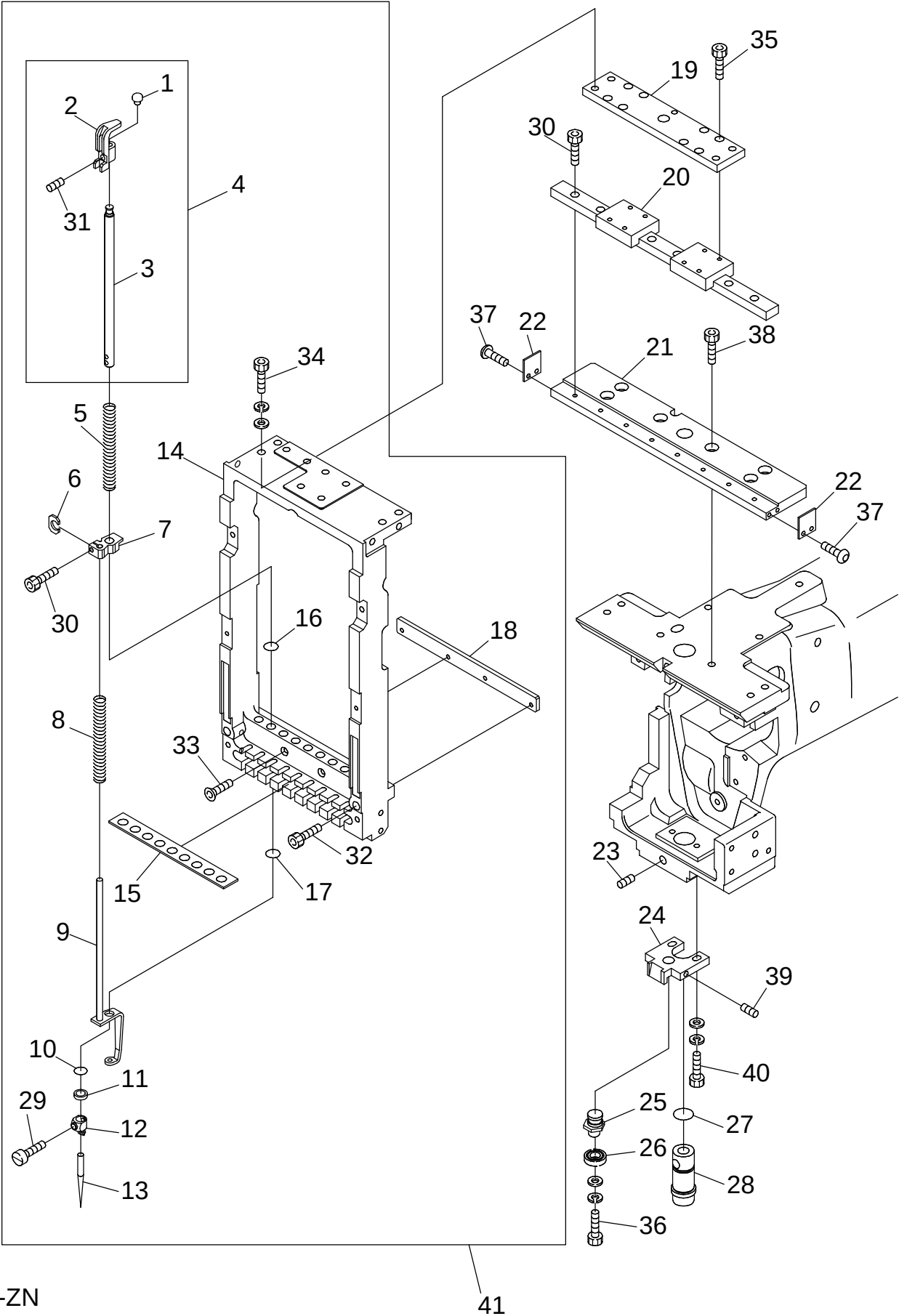
BENSME-ZQ
BENRME-ZQ

03-2 Take Up Lever (ZQ)

(H=Head Qty)

[illegible]

04A-1 NEEDLE BAR A (ZN)



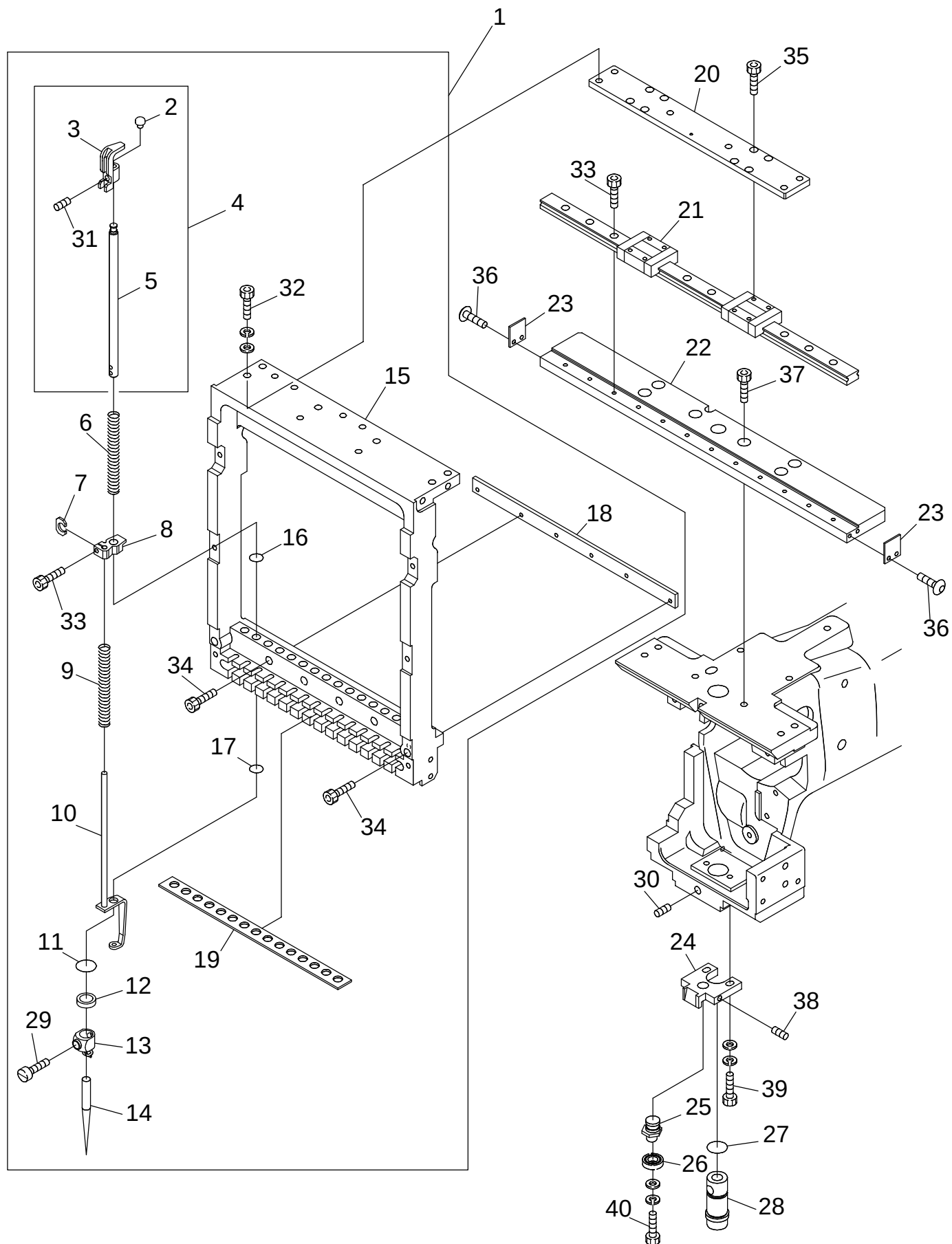
BENSME-ZN
BENRME-ZN

04A-1 Needle Bar A (ZN)

(H=Head Qty)

ITEM	LIST NO.	DESCRIPTION	QTY	NOTE
1.	HT230130	Needle Bar Cap	Hx9	
2.	HT230151	Needle Bar Guide	Hx9	
3.	HT230041	Needle Bar	Hx9	
4.	HT230810	Needle Bar Assembly	Hx9	
5.	HT230251	Needle Bar Spring	Hx9	
6.	HT230263	Set Clamp Washer	Hx9	
7.	HT230330	Presser Foot Set Clamp	Hx9	
8.	KX230251	Needle Bar Spring (Lower)	Hx9	
9.	HT230143	Presser Foot (YN/ZN)	Hx9	
10.	KF230910	O-Ring (S)	Hx9	
11.	MF230000	Needle Clamp Spacer (ZN/ZQ)	Hx9	
12.	HT230670	Needle Clamp (with Hook)	Hx9	
13.	FN070011SNY	Needle (DBXK5-NY11S)	Hx9	
14.	KX230283	Slide Block (ZNA)	Hx1	
15.	KX230180	Needle Bar Felt	Hx1	
16.	A9014055	O-Ring (L) (1AS-7)	Hx9	
17.	KF230920	O-Ring (L)	Hx9	
18.	KX230040	Bearing Plate	Hx1	
19.	KX230010	LM Base	Hx1	
20.	KX230060	LM Guide	Hx1	
21.	KX230023	Base Plate	Hx1	
22.	KX230191	LM Stopper	Hx2	
23.	A9012053	Hex Socket Set Screw M6x8	Hx2	
24.	LA230140	Bearing Guide	Hx1	
25.	KX230050	Bearing Pin	Hx1	
26.	A9010065	Ball Bearing (686ZZ)	Hx1	
27.	A9019037	O-Ring (Lower Bushing, S12.5)	Hx1	
28.	LA230080	Slide Shaft Bushing (Lower)	Hx1	
29.	KF230240	Needle Clamp Screw (SM9/64-40)	Hx9	
30.		Hex. Socket Bolt M3x8		
31.		Hex. Socket Set Screw M4x4		
32.		Hex Socket Bolt M3x25		
33.		Hex Socket Flush Screw M3x25		
34.		Hex Socket Bolt M5x16 (with Washers)		
35.		Hex Socket Bolt M3x6		
36.		Hex Socket Bolt M4x6 (with Washers)		
37.		Hex Socket Bolt M3x6		
38.		Hex Socket Bolt M5x12		
39.		Hex Socket Set Screw M4x12		
40.		Hex Socket Bolt M4x15 (with Washers)		
41.	LA230321	Slide Block Assembly (ZNA)	Hx1	

04A-2 NEEDLE BAR A (ZQ)



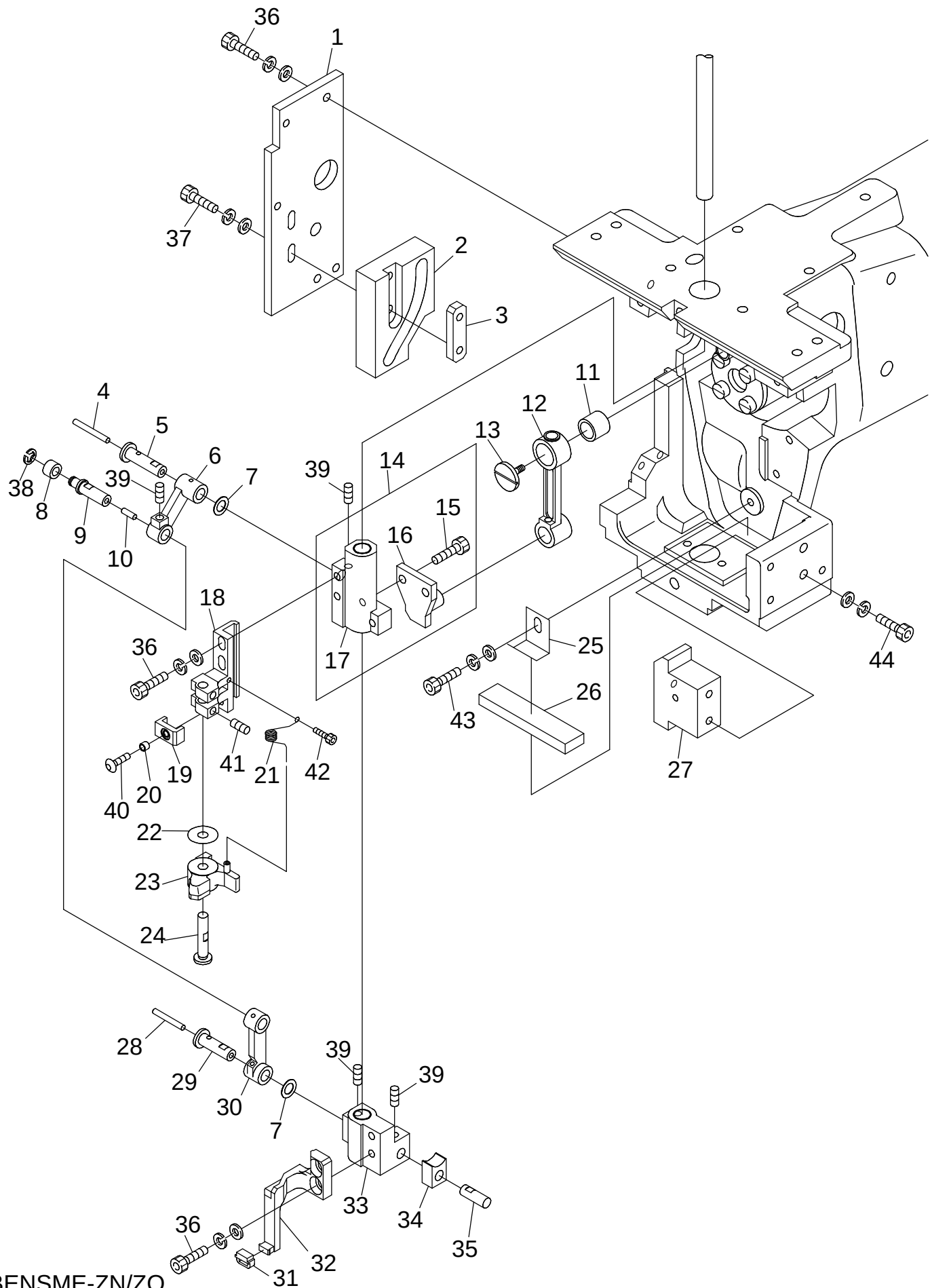
BENSME-ZQ
BENRME-ZQ

04A-2 Needle Bar A (ZQ)

(H=Head Qty)

ITEM	LIST NO.	DESCRIPTION	QTY	NOTE
1.	LA230301	Slide Block Assembly (ZQ)	Hx1	
2.	HT230130	Needle Bar Cap	Hx15	
3.	HT230151	Needle Bar Guide	Hx15	
4.	HT230190	Needle Bar Assembly	Hx15	
5.	HT230041	Needle Bar	Hx15	
6.	HT230251	Needle Bar Spring (Upper)	Hx15	
7.	HT230261	Set Clamp Washer	Hx15	
8.	HT230330	Presser Foot Set Clamp	Hx15	
9.	KX230250	Needle Bar Spring (Lower)	Hx15	
10.	HT230143	Presser Foot (YN/ZN)	Hx15	
11.	KF230910	O-Ring (S)	Hx15	
12.	MF230000	Needle Clamp Spacer (ZN/ZQ)	Hx15	
13.	HT230670	Needle Clamp (with Hook)	Hx15	
14.	FN070011SNY	Needle (DBXK5-NY11S)	Hx15	
15.	LA230231	Slide Block (ZQ)	Hx1	
16.	A9014055	O-Ring (L) (1AS-7)	Hx15	
17.	KF230920	O-Ring (L)	Hx15	
18.	RD230060	Bearing Plate	Hx1	
19.	RD230070	Needle Bar Felt	Hx1	
20.	LA230240	LM Base	Hx1	
21.	RD230020	LM Guide	Hx1	
22.	LA230221	Base Plate	Hx1	
23.	KX230191	LM Stopper	Hx2	
24.	LA230140	Bearing Guide	Hx1	
25.	KX230050	Bearing Pin	Hx1	
26.	A9010065	Ball Bearing (686ZZ)	Hx1	
27.	A9019037	O-Ring (Lower Bushing, S12.5)	Hx1	
28.	LA230080	Slide Shaft Bushing (Lower)	Hx1	
29.	KF230240	Needle Clamp Screw (SM9/64-40)	Hx15	
30.	A9012053	Hex Socket Set Screw M6x8	Hx2	
31.		Hex Socket Set Screw M4x4		
32.		Hex Socket Bolt M5x16 (with Washers)		
33.		Hex Socket Bolt M3x8		
34.		Hex Socket Bolt M3x25		
35.		Hex Socket Bolt M3x6		
36.		Hex Socket Button Bolt M3x6		
37.		Hex Socket Bolt M5x12		
38.		Hex Socket Set Screw M4x12		
39.		Hex Socket Bolt M4x15 (with Washers)		
40.		Hex Socket Bolt M4x6 (with Washers)		

04B NEEDLE BAR B



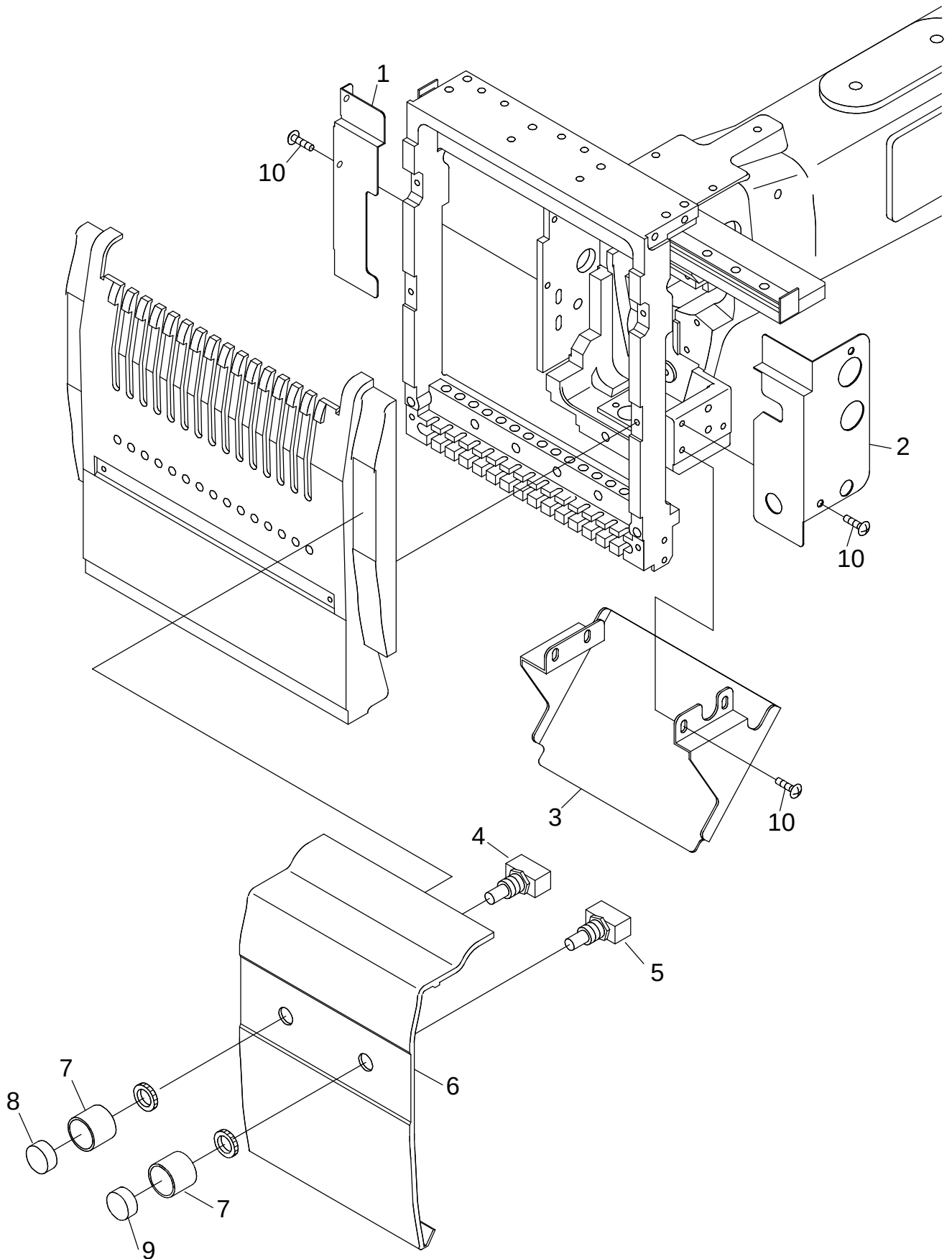
BENSME-ZN/ZQ
BENRME-ZN/ZQ

04B Needle Bar B

(H=Head Qty)

ITEM	LIST NO.	DESCRIPTION	QTY	NOTE
1.	LA230100	Presser Foot Cam Plate	Hx1	
2.	LA230150	Presser Foot Cam	Hx1	
3.	HT230380	Cam Tap Plate	Hx1	
4.	LA230290	Oil Core (23mm)	Hx1	
5.	LA230110	Link Pin (Upper)	Hx1	
6.	LA230040	Link (Upper)	Hx1	
7.	HT230730	Shim Ring (10.0 Dia., T=0.3)	Hx2	
8.	KF230530	Roller Joint Pin	Hx1	
9.	LA230130	Link Roller Joint Pin	Hx1	
10.	HT230760	Oil Core (8mm)	Hx1	
11.	A9011115	Needle Bearing (K9x12x10T2)	Hx1	
12.	LA230060	Crank Rod	Hx1	
13.	KB230070	90° Crank (Counterclockwise Screw)	Hx1	
14.	LA230030	Driver Slide Assembly	Hx1	
15.	A9019036	Hex Socket Bolt M4x10	Hx2	
16.	LA230020	Driver Slide Pin	Hx1	
17.	LA230010	Driver Slide	Hx1	
18.	LB230070	Needle Bar Driver Fixing Base (ZN/ZQA)	Hx1	
19.	HT230520	Needle Bar Driver Stopper	Hx1	
20.	A9012368	Spacer (Roll Bushing)	Hx1	
21.	HT230560	Needle Bar Driver Return Spring	Hx1	
22.	A9012367	Shim Ring (15.0 Dia., T=0.15)	Hx1	
23.	HT230531	Needle Bar Driver	Hx1	
24.	HT230280	Needle Bar Driver Pin	Hx1	
25.	LA230200	Felt Plate	Hx1	
26.	LA230210	Felt (Head Oil)	Hx1	
27.	LA230160	Guide Box	Hx1	
28.	HT230770	Oil Core (20mm)	Hx1	
29.	LA230120	Link Pin (Lower)	Hx1	
30.	LA230050	Link (Lower)	Hx1	
31.	HT230340	Presser Foot Support Rubber	Hx1	
32.	HT230370	Presser Foot Support	Hx1	
33.	LA230070	Presser Foot Slide	Hx1	
34.	HP231370	Square Ball	Hx1	
35.	LA230090	Square Ball Pin	Hx1	
36.		Hex Socket Bolt M4x12		
37.		Hex Socket Bolt M4x20		
38.		E-Ring (3.0 Dia.)		
39.		Hex Socket Set Screw M4x6 (with Nylon)		
40.		Hex Socket Button Bolt M3x6		
41.		Hex Socket Set Screw M4x4 (with Nylon)		
42.		Hex Socket Bolt M2.5x6		
43.		Hex Socket Bolt M4x8		
44.		Hex Socket Bolt M4x16		

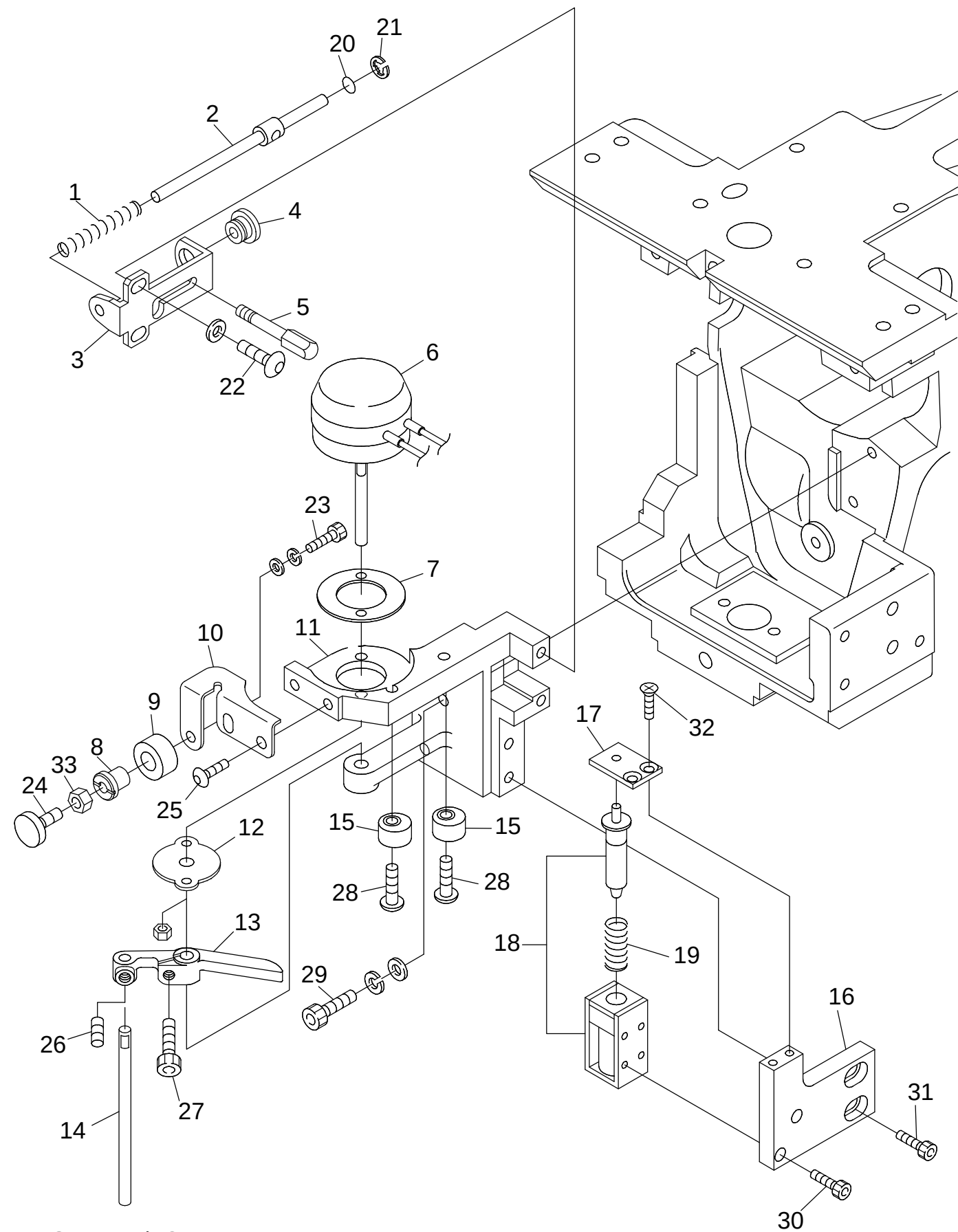
04C NEEDLE BAR C



BENSME-ZN/ZQ
BENRME-ZN/ZQ

(H=Head Qty)

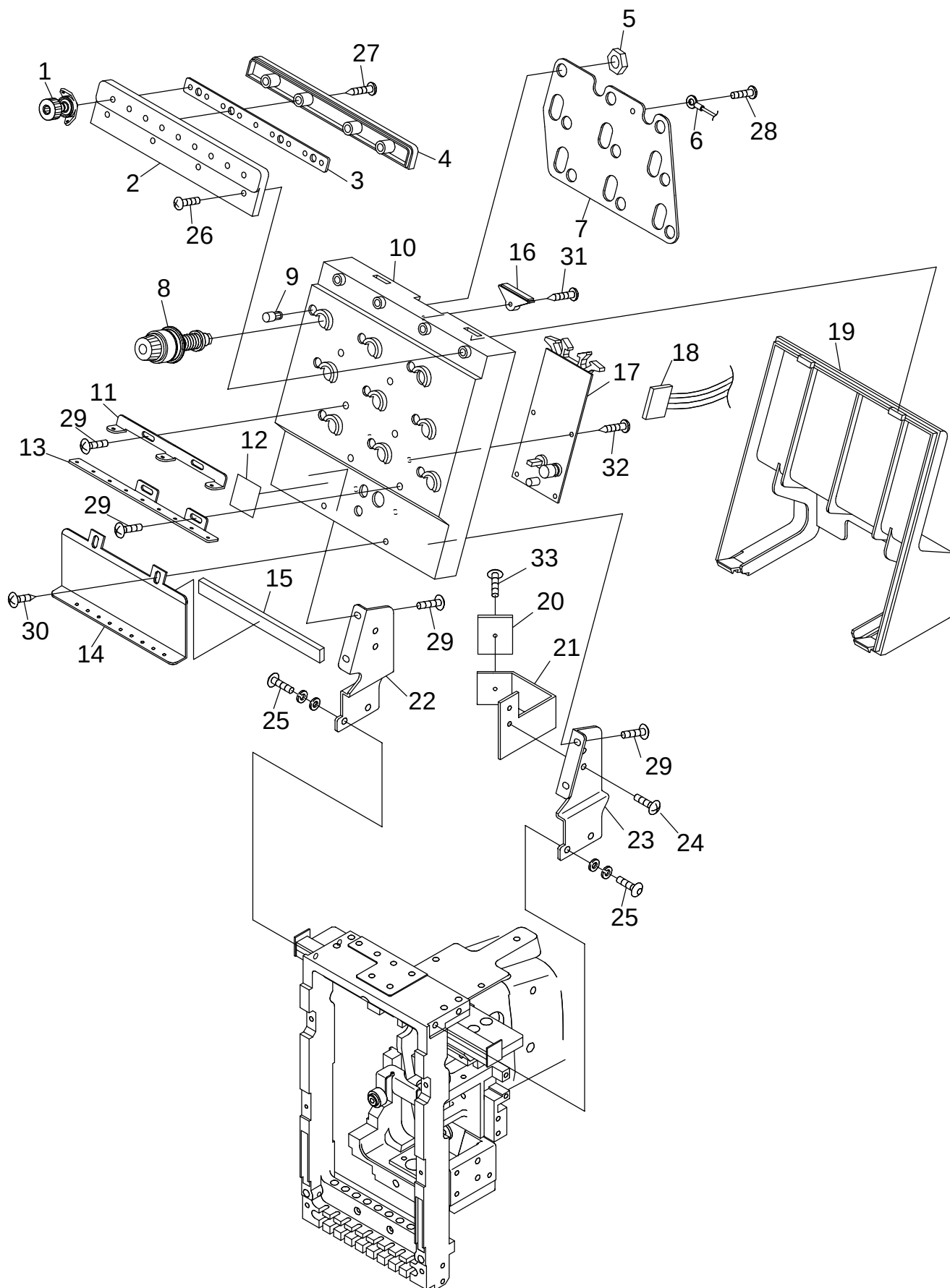
[illegible]



BENSME-ZN/ZQ
BENRME-ZN/ZQ

[illegible]

06A-1-1 THREAD GUIDE A (STANDARD)(ZN)



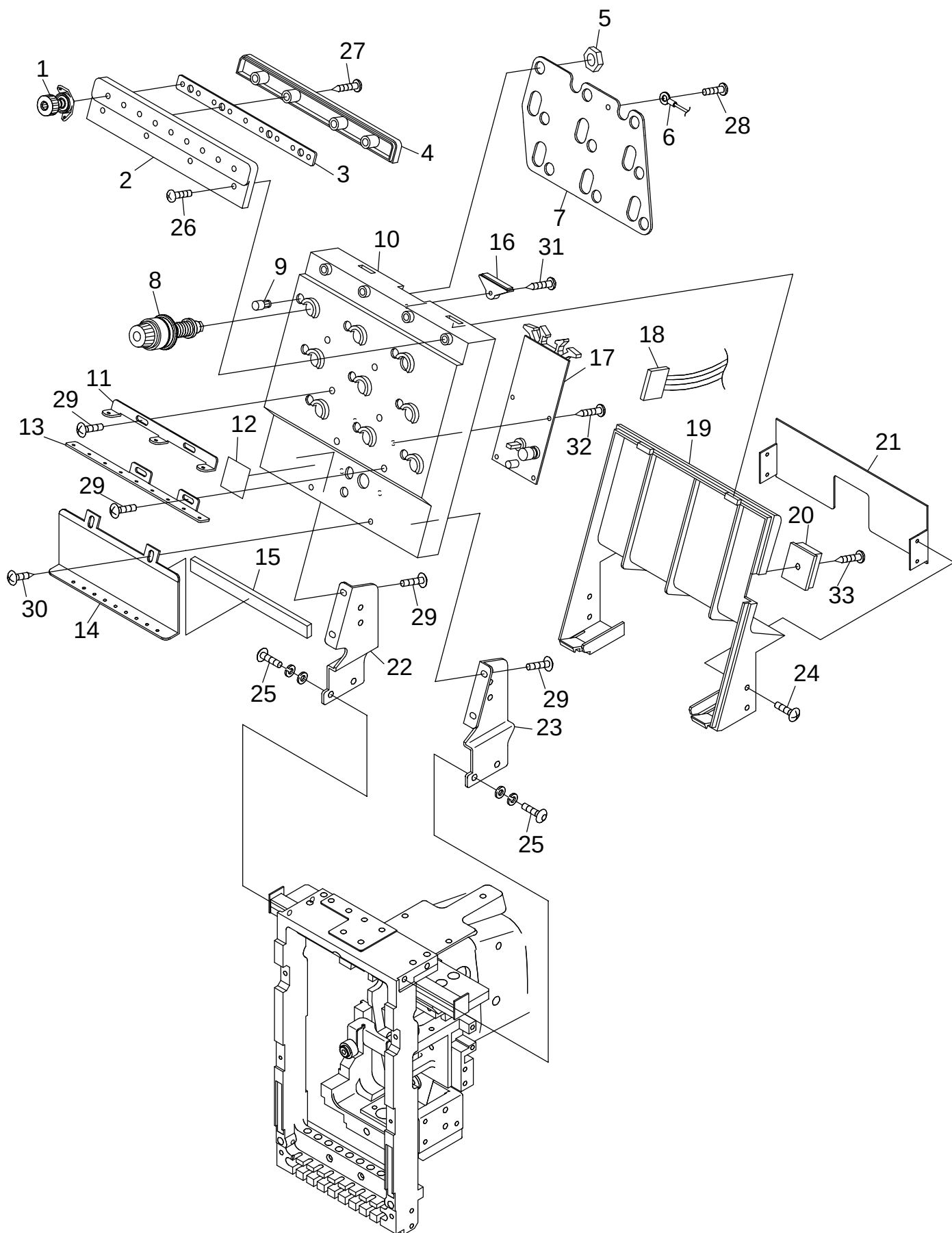
BENSME-ZN
BENRME-ZN

06A-1-1 Thread Guide A (Standard) (ZN)

(H=Head Qty)

[illegible]

06A-1-2 THREAD GUIDE A (STANDARD)(ZN)(FIRST HEAD)

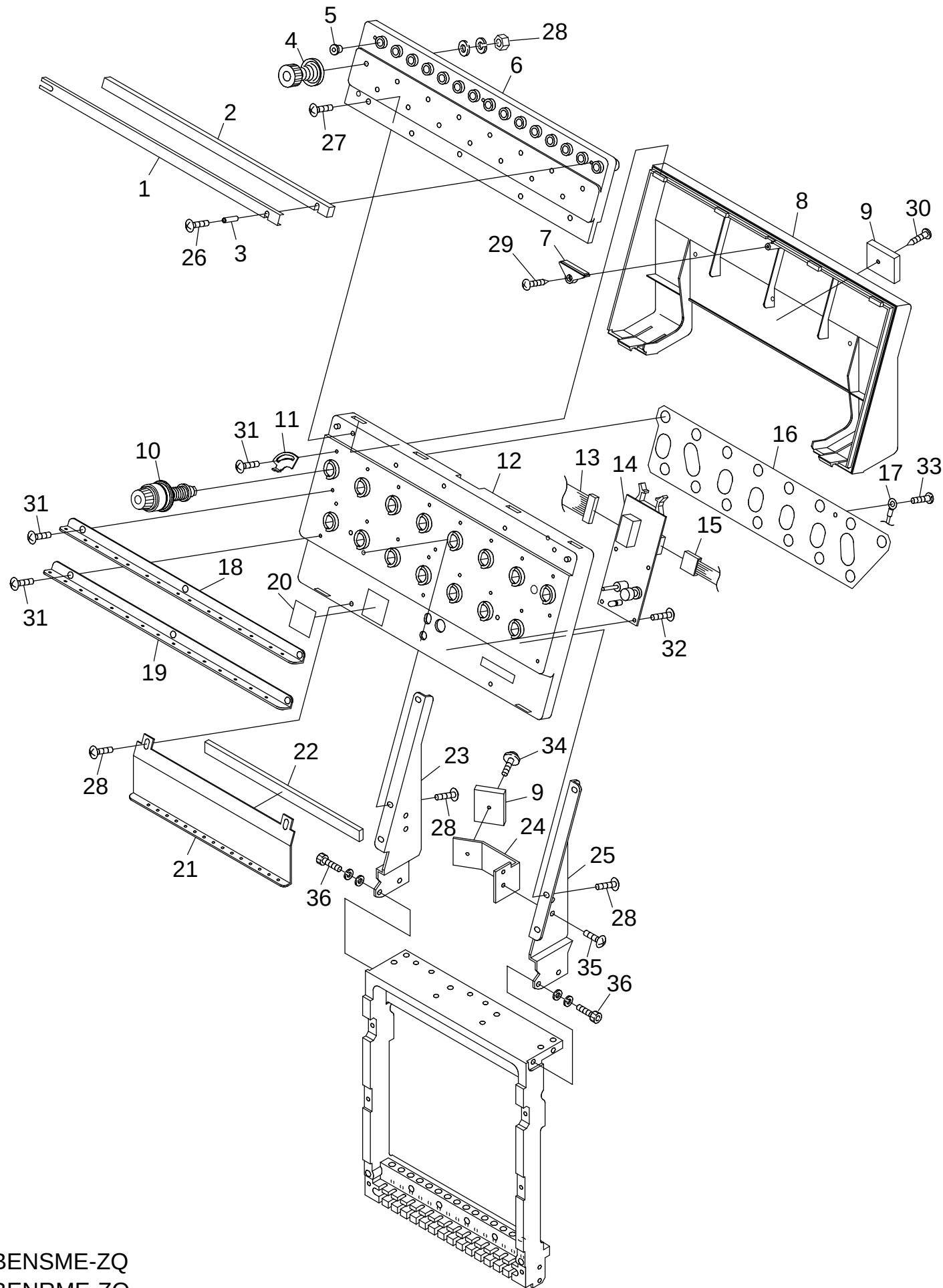


BENSME-ZN
BENRME-ZN

06A-1-2 Thread Guide A (Standard) (ZN) (First Head)

[illegible]

06A-2 THREAD GUIDE A (STANDARD)(ZQ)



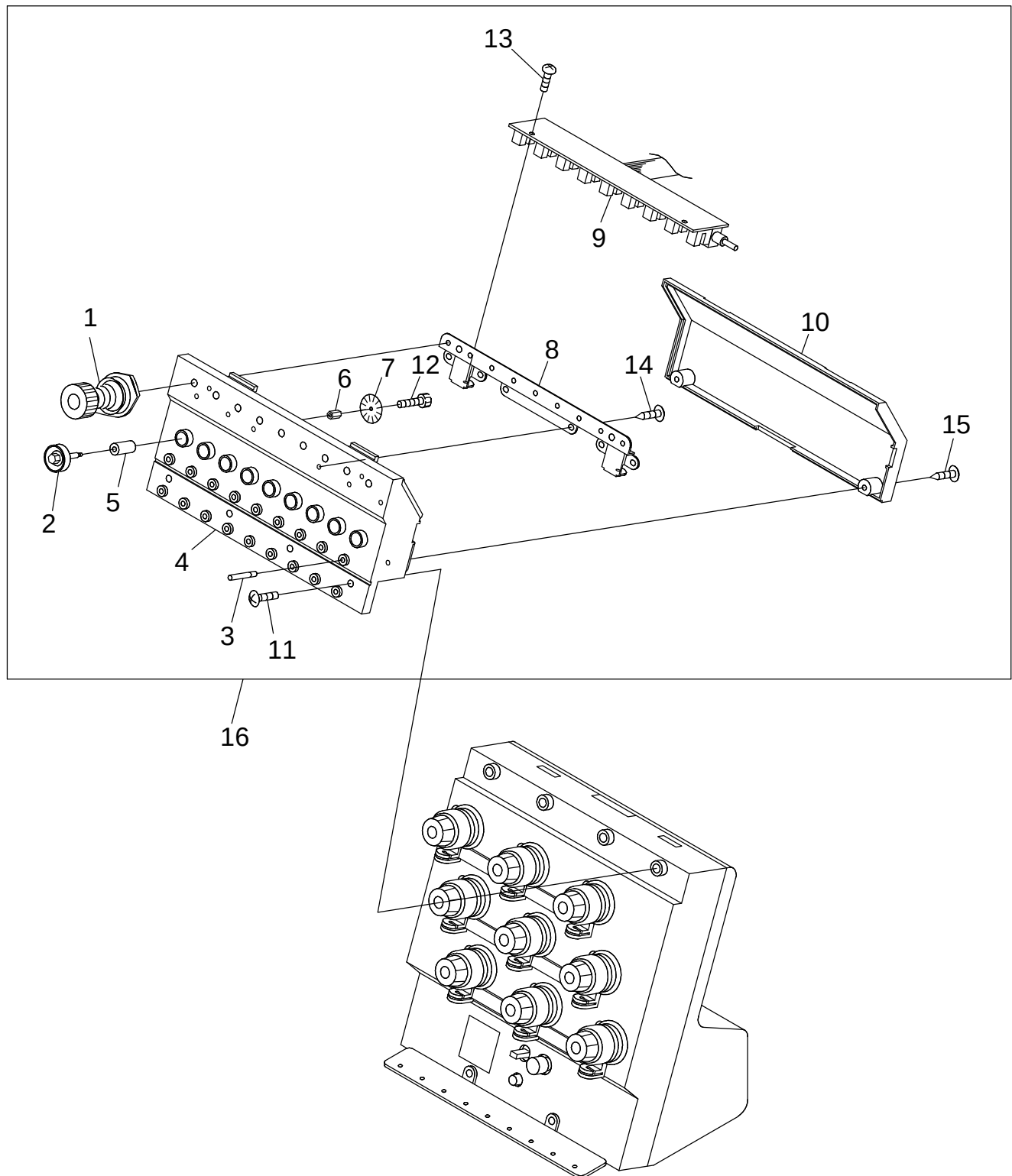
BENSME-ZQ
BENRME-ZQ

06A-2 Thread Guide A (Standard) (ZQ)

(H=Head Qty)

ITEM	LIST NO.	DESCRIPTION	QTY	NOTE
1.	RD240291	Felt Frame	Hx1	
2.	RD240301	Felt	Hx1	
3.	A9012412	Spacer (3.0 Dia.x17L)	Hx2	
4.	RD240320	First Thread Tension Unit Assembly (ZQ-A)	Hx15	
5.	HT240480	Thread Guide Eyelet (White)	Hx15	
6.	RD240280	Thread Tension Base	Hx1	
7.	HT240240	Blind Cap	Hx1	
8.	RD240030	Tension Base Cover (ZQ-A)	Hx1	
9.	A9068032	Clamp (FCW-26)	Hx2	
10.	RD240152	Dial Thread Tension Unit Assembly (ZQ)	Hx15	
11.	RD240111	Thread Spring Adjusting Plate	Hx15	
12.	RD240021	Tension Base Case	Hx1	
13.	EBY01690	H1899 Cable	Hx1	
14.	EBY01670	4640 Head Switch Board (ZN/ZQ)	Hx1	
15.	EBY01700	H1900 Additional Cable	Hx1	
16.	RD240121	Tension Ground Plate	Hx1	
17.	RD240220	Tension Ground Cable	Hx1	
18.	RD240330	First Thread Guide Plate (ZQ-A)	Hx1	
19.	RD240340	Second Thread Guide Plate (ZQ-A)	Hx1	
20.		Number Label	Hx1	
21.	LA240030	Second Thread Guide	Hx1	
22.	LA240040	Sponge Rubber	Hx1	
23.	MG240010	Tension Base Bracket, ZQ (L)	Hx1	
24.	RD240090	Wiring Holder	Hx1	
25.	MG240000	Tension Base Bracket, ZQ (R)	Hx1	
26.		Truss Screw M3x25		
27.		Truss Screw M4x10		
28.		Hex Nut SM11/64		
29.		Tapping Screw ϕ 3x12		
30.		Tapping Pan Screw ϕ 3x25		
31.		Truss Screw M3x5		
32.		Truss Screw M3x6		
33.		Pan Screw M3x6		
34.		Pan Screw with Flange M3x8		
35.		Truss Screw M4x6		
36.		Hex Socket Bolt M5x10 (with Washers)		
37.	RD240430	Tube Holder (Upper)		
38.	RD240440	Tube Holder (Lower)		
39.		Hex Socket Bolt M3x16		

06B-1 THREAD GUIDE B (UTSM) (ZN)



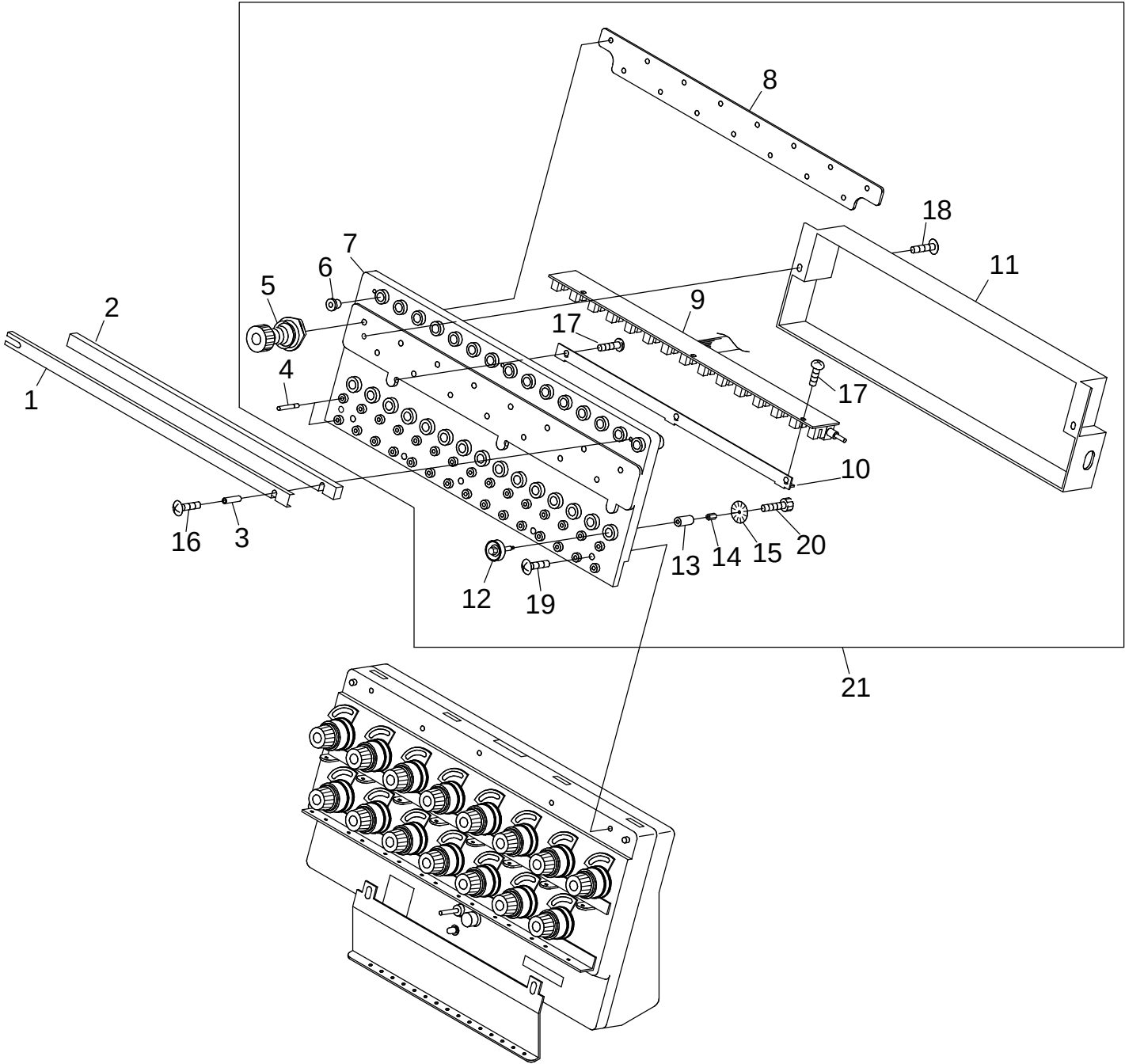
BENSME-YN
BENRME-YN

06B-1 Thread Guide B (UTSM) (ZN)

(H=Head Qty)

[illegible]

06B-2 THREAD GUIDE B (UTSM) (ZQ)



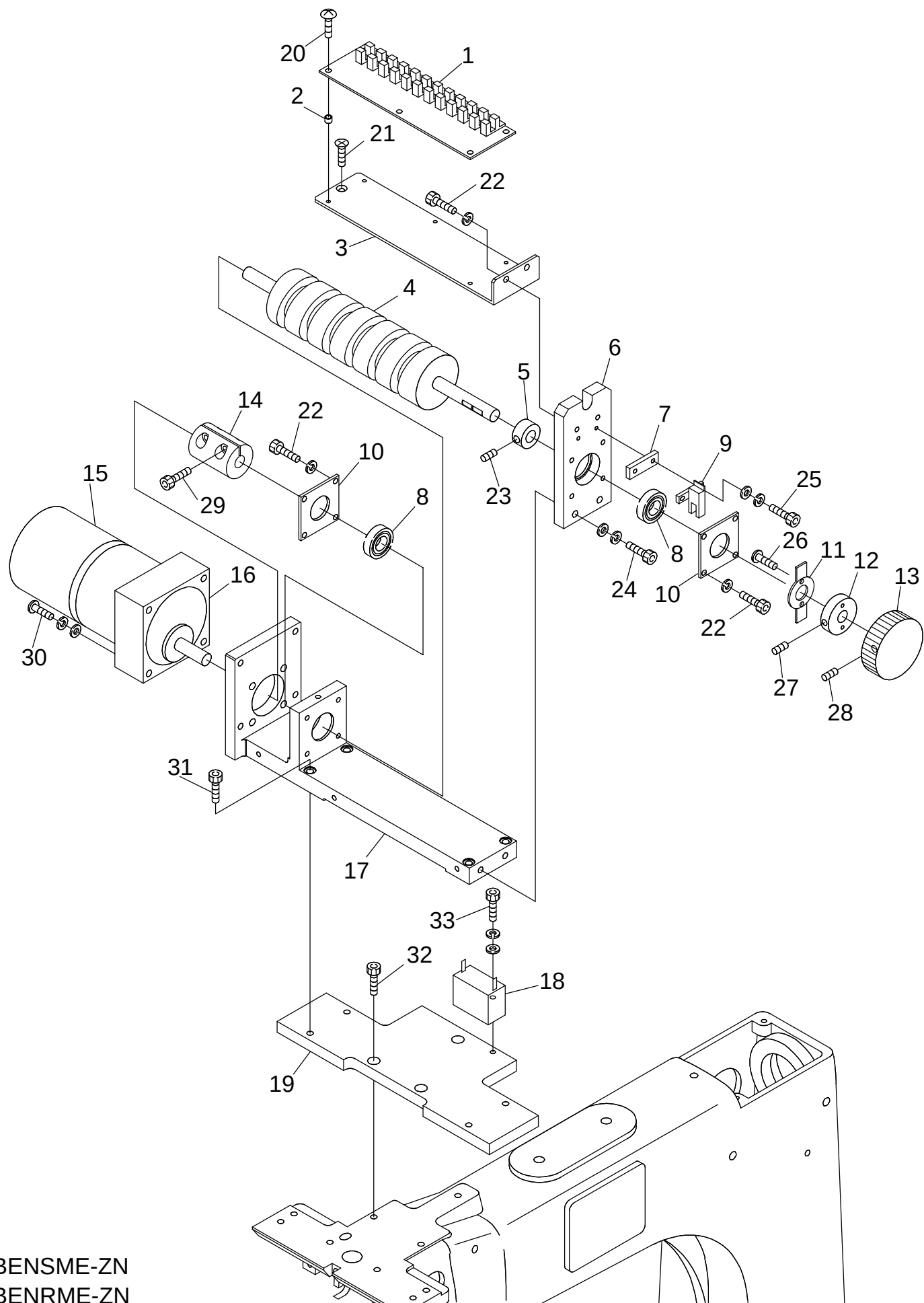
BENSME-ZQ
BENRME-ZQ

06B-2 Thread Guide B (UTSM) (ZQ)

(H=Head Qty)

[illegible]

07A-1 COLOR CHANGE A (ZN)

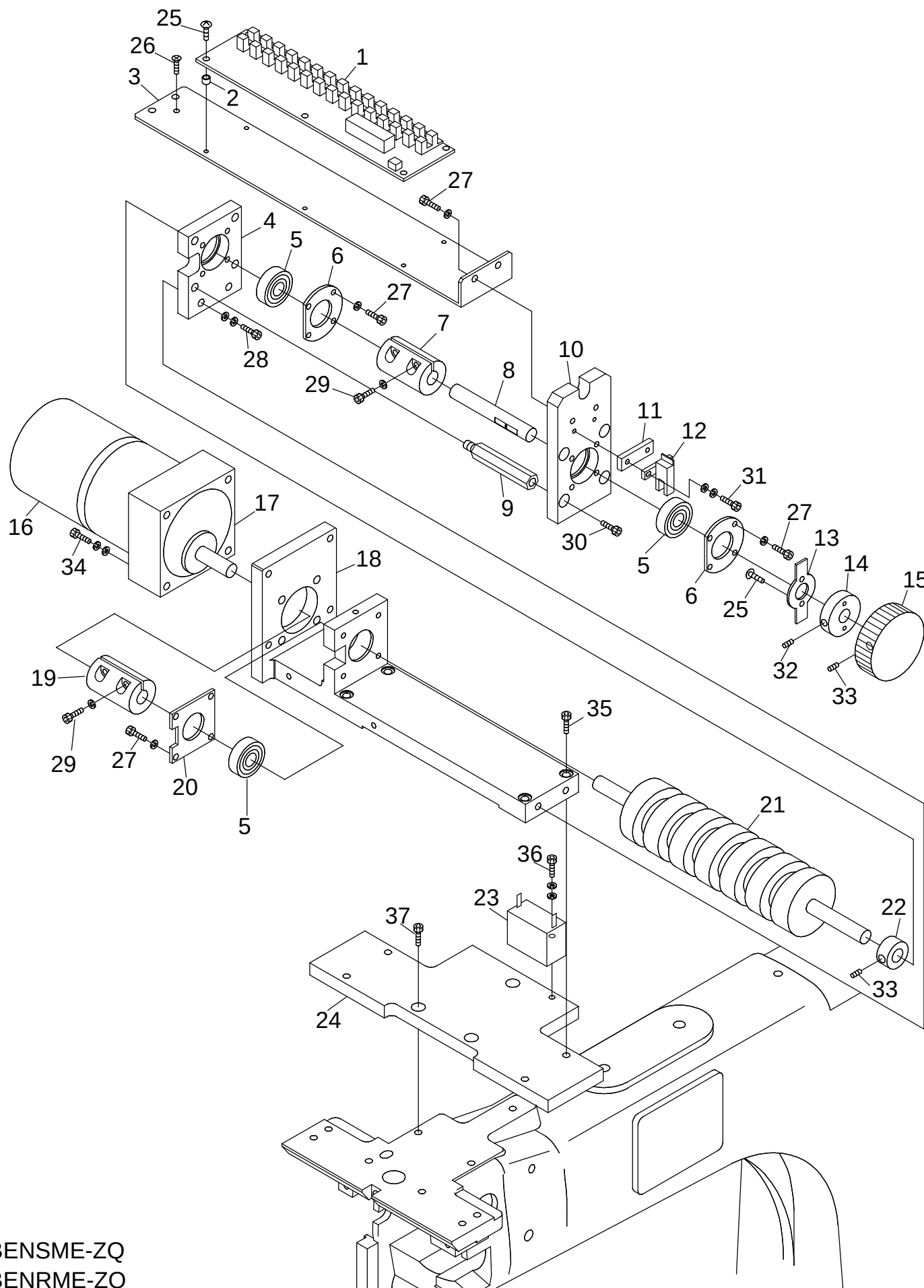


BENSME-ZN
BENRME-ZN

07A-1 Color Change A (ZN)

[illegible]

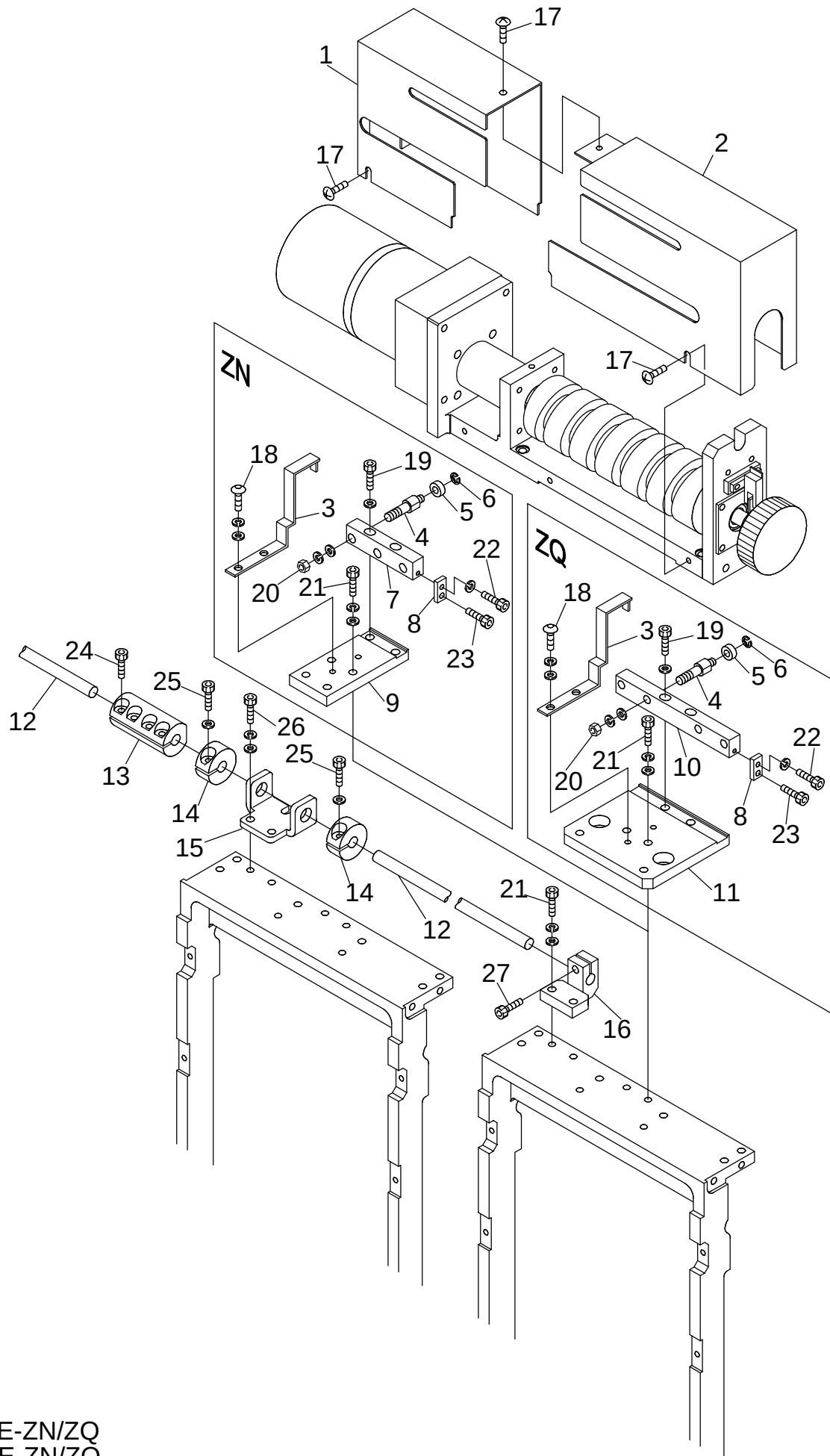
07A-2 COLOR CHANGE A (ZQ)



BENSME-ZQ
BENRME-ZQ

07A-2 Color Change A (ZQ)

ITEM	LIST NO.	DESCRIPTION	QTY	NOTE
1.	EBY01650	3772 Color Change Board (ZQ)	1	
2.	A9012208	Spacer, Roll Bushing (5.0 Dia.x4L)	5	
3.	RD330081	Color Change Board Base Plate	1	
4.	LA330060	Color Change Side Plate (ZQ-A)	1	
5.	A9010062	Bearing (6000ZZ)	3	
6.	RD330070	Bearing Plate (ZQ)	2	
7.	RD330030	Motor Coupling	1	6T Max
			2	8T Min
8.	RD330040	Connecting Shaft	1	
9.	RD330050	Stud Bolt	4	
10.	LA330040	Color Change Slide Plate (ZQ-A)	1	
11.	KX330250	Sensor Spacer	1	
12.	A9060063	Micro Sensor (EE-SX672A OMRON)	1	
13.	KX330271	Lock Sensor Dock	1	
14.	KC330170	Detection Plate Collar	1	
15.	KX330130	Manual Knob	1	
16.	A9065092	Reversible Motor (3RJ10GB-AUL-E4)	1	6TMax
	A9065078	Reversible Motor (3RK15GN-AUL-E13)	1	8T Min
17.	A9065093	Gear Head (3GB18K)	1	6T Max
	A9065079	Gear Head (3GN18K)	1	8T Min
18.	LA330091	Color Change Base (ZQ-A)	1	
19.	RD330020	Motor Coupling	1	6T Max
20.	RD330060	Bearing Bracket (ZQ)	2	
21.	RD330150	Color Change Cam (ZQ)	1	
22.	KX330120	Bearing Collar	1	
23.	A9054022	Condenser (CH45UL)	1	6T Max
	A9054023	Condenser (CH60UL)	1	8T Min
24.	LA330120	Color Change Base Plate	1	
25.		Truss Screw M3x8		
26.		Flush Screw M4x6		
27.		Hex Socket Bolt M4x10 (with Spring Washer)		
28.		Hex Socket Bolt M5x25 (with Washers)		
29.		Hex Socket Bolt M4x25 (with Spring Washer)		
30.		Hex Socket Bolt M5x15		
31.		Hex Socket Bolt M3x16 (with Washers)		
32.		Hex Socket Set Screw M5x10		
33.		Hex Socket Set Screw M6x6		
34.		Hex Socket Bolt M4x60 (with Washers)		
35.		Hex Socket Bolt M5x25		
36.		Hex Socket Bolt M4x10 (with Washers)		
37.		Hex Socket Bolt M5x18		

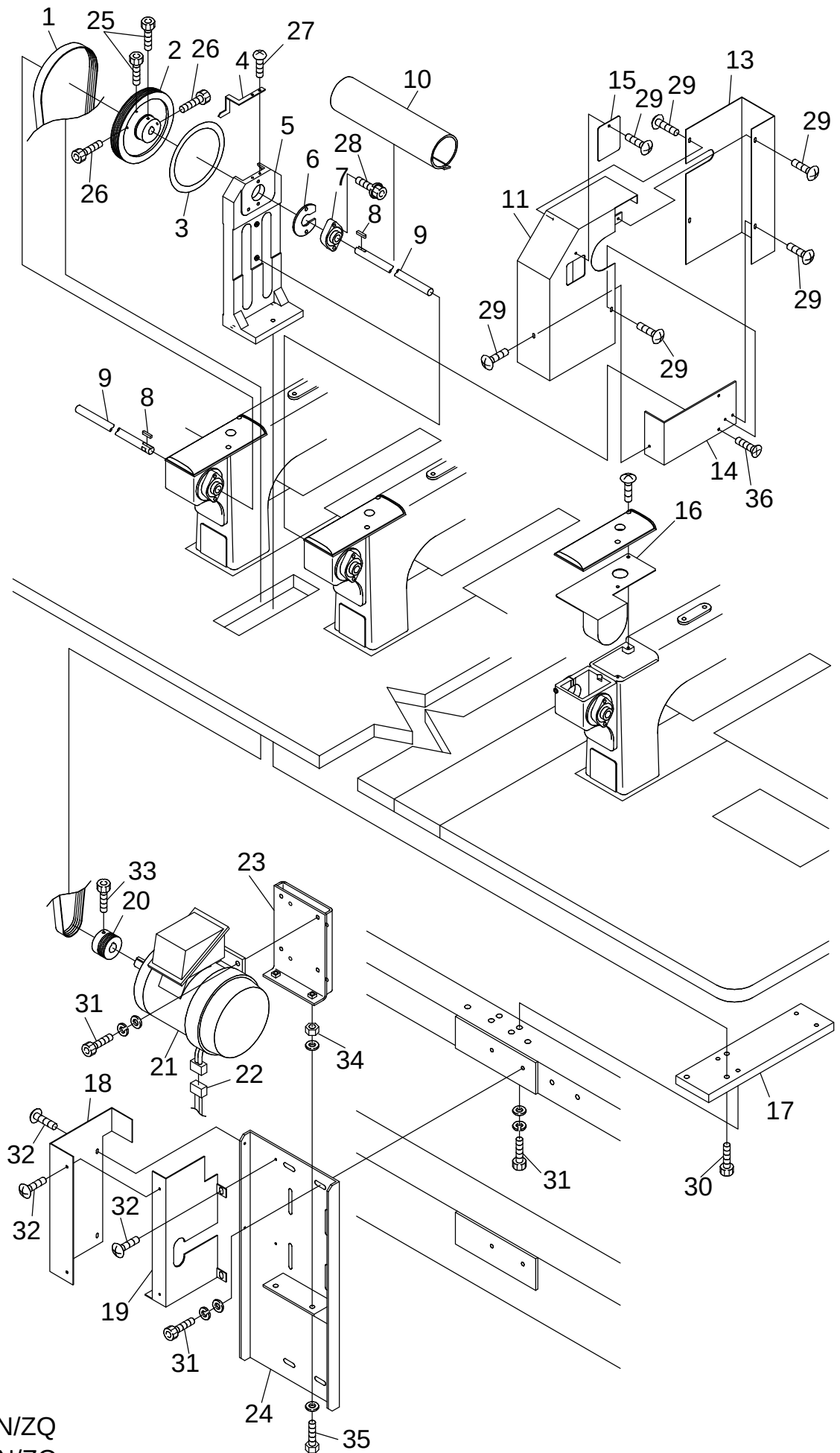


07B Color Change B

(H=Head Qty) (Depends on Machine)

[illegible]

08 DRIVE



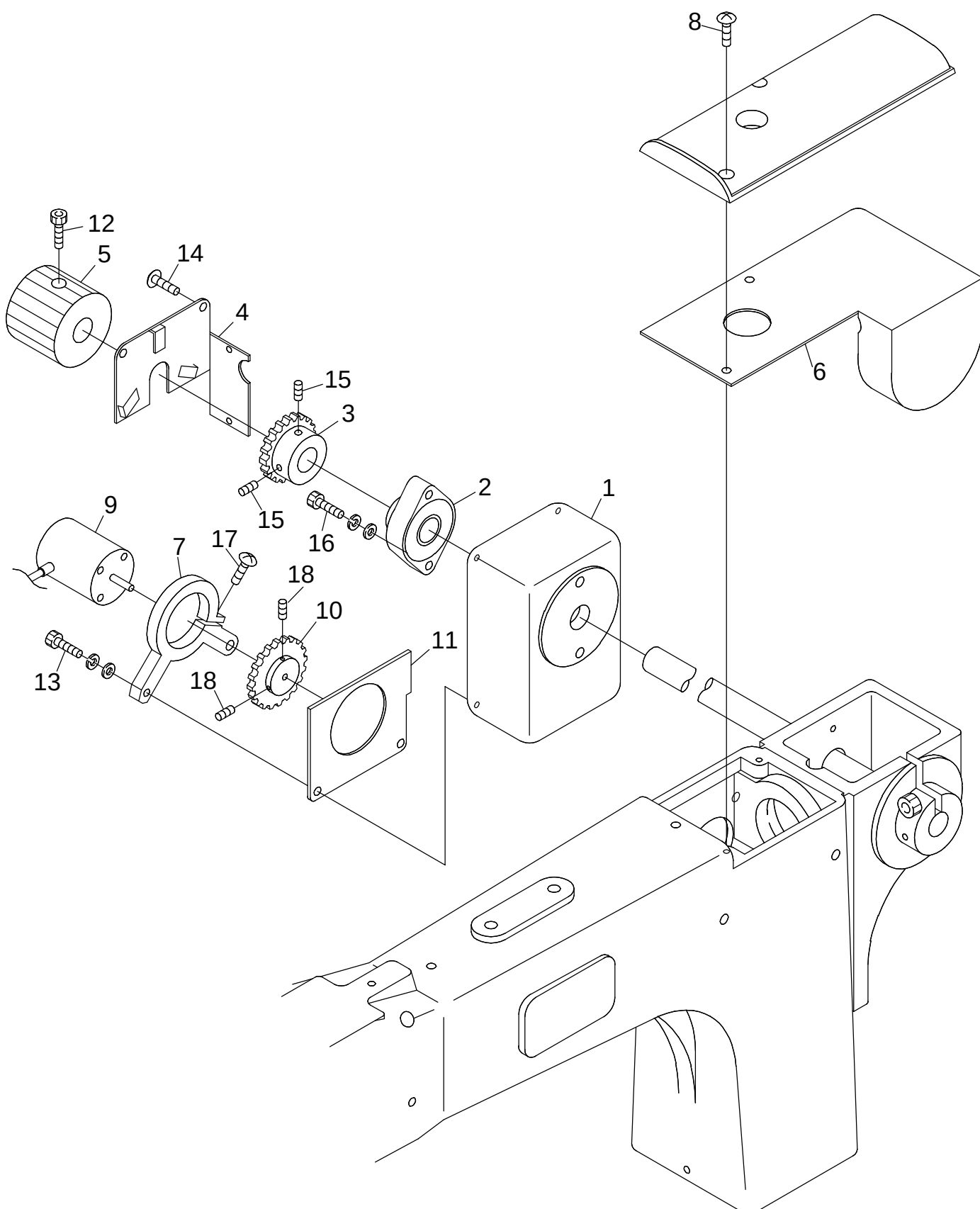
BENSME-ZN/ZQ
BENRME-ZN/ZQ

08 Drive

(* Depends on Machine Type)

[illegible]

09 CONNECTING SHAFT

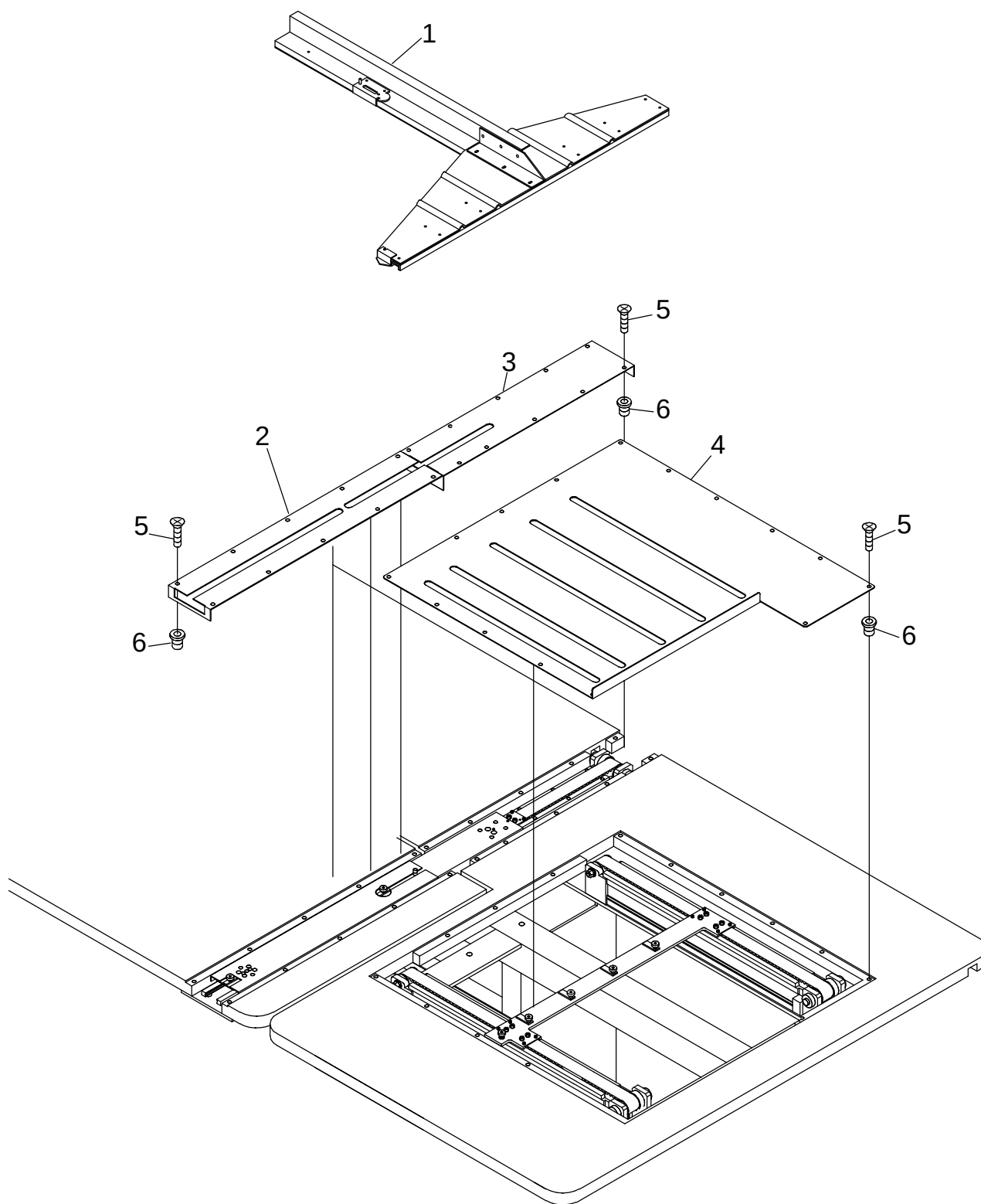


BENSME-ZN/ZQ
BENRME-ZN/ZQ

09 Connecting Shaft

[illegible]

10A PANTOGRAPH DRIVE A



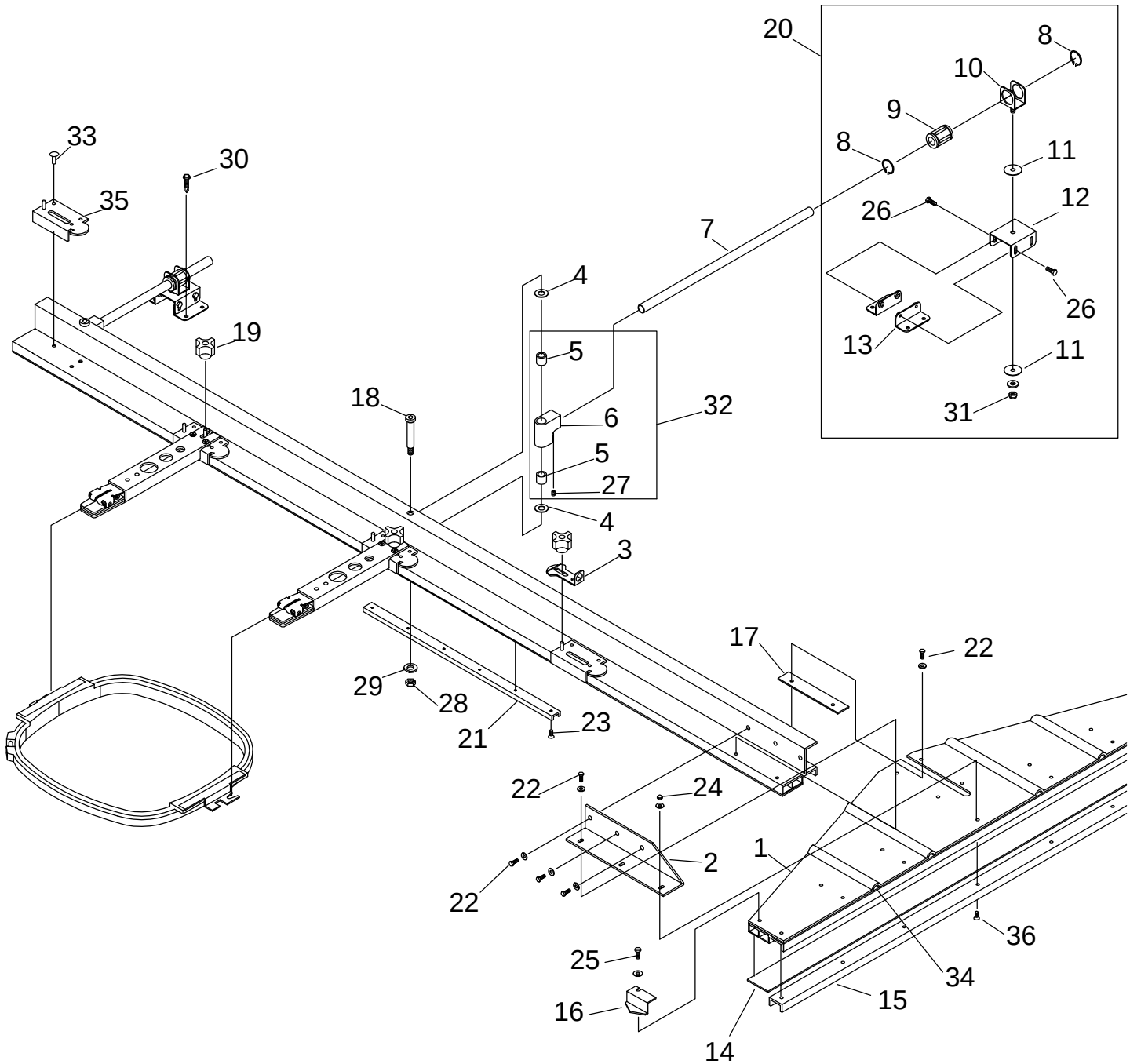
BENSME-ZN/ZQ
BENRME-ZN/ZQ

10A Pantograph Drive A

(R=H-Direction Rail Qty.)

[illegible]

10B-1 PANTOGRAPH DRIVE B



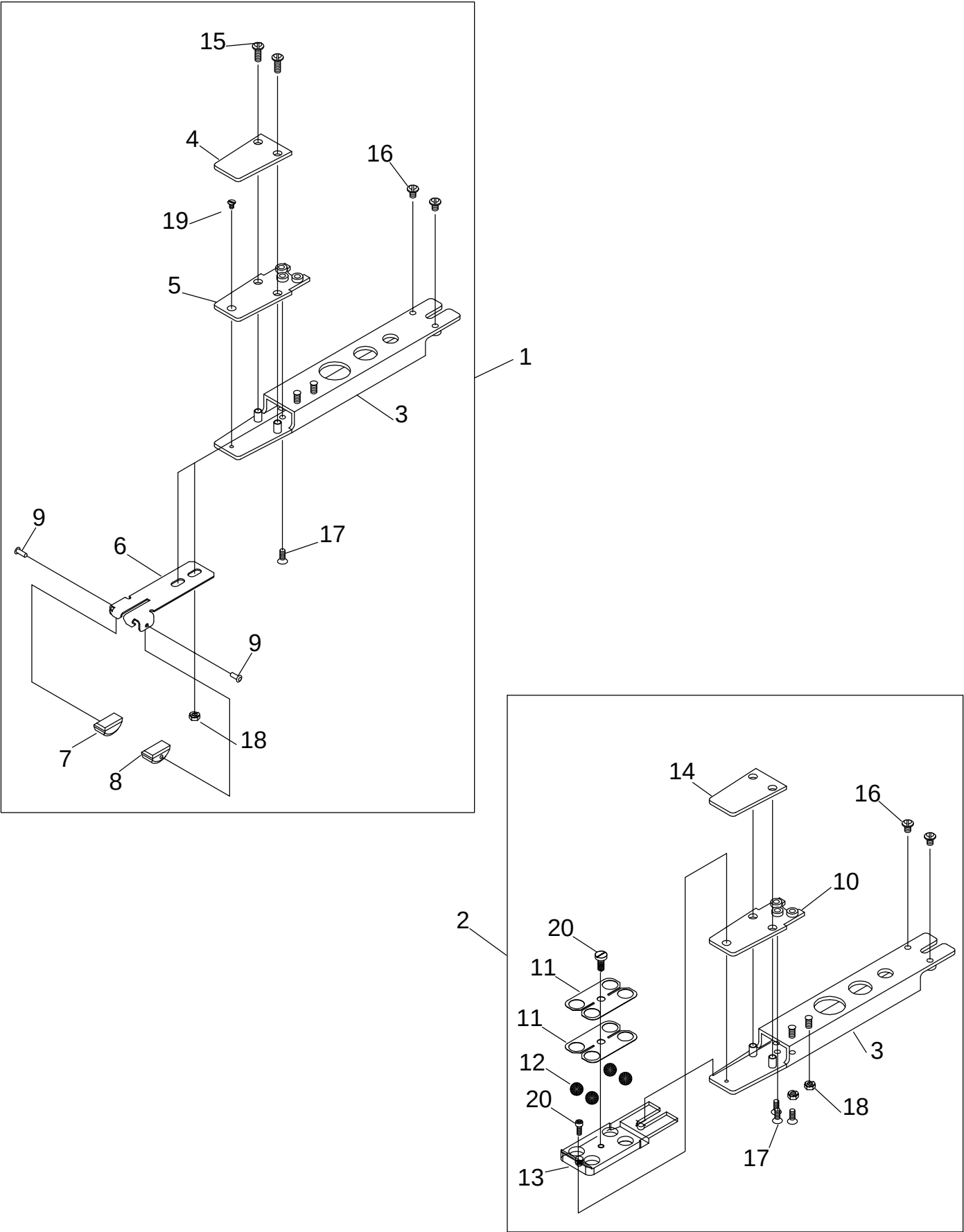
BENSME-ZN/ZQ
BENRME-ZN/ZQ

10B-1 Pantograph Drive B

(S=Set Qty)

[illegible]

10B-2 PANTOGRAPH HOOP SUPPORT ARM

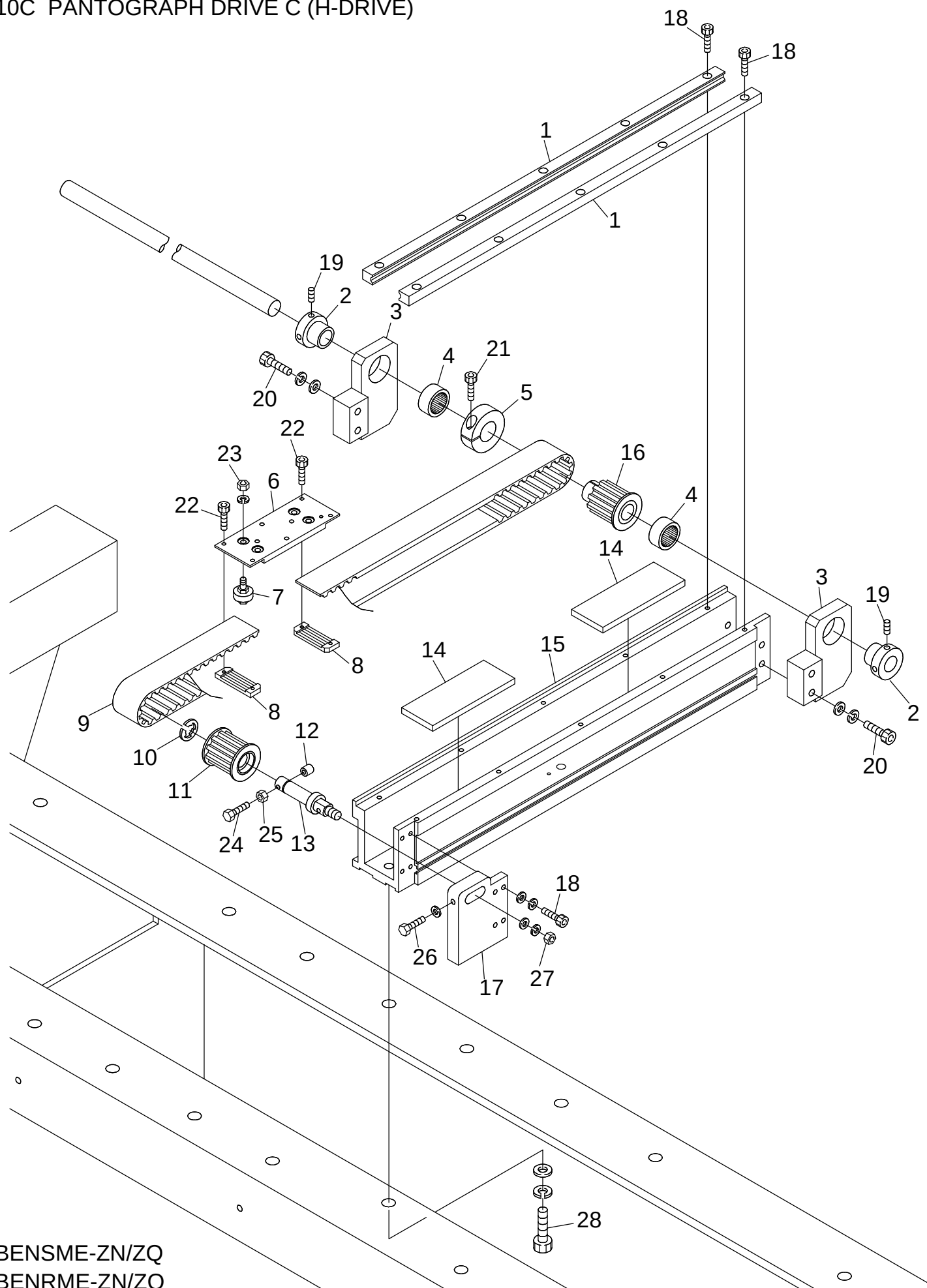


BENSME-ZN/ZQ
BENRME-ZN/ZQ

10B-2 Pantograph Hoop Support Arm

[illegible]

10C PANTOGRAPH DRIVE C (H-DRIVE)



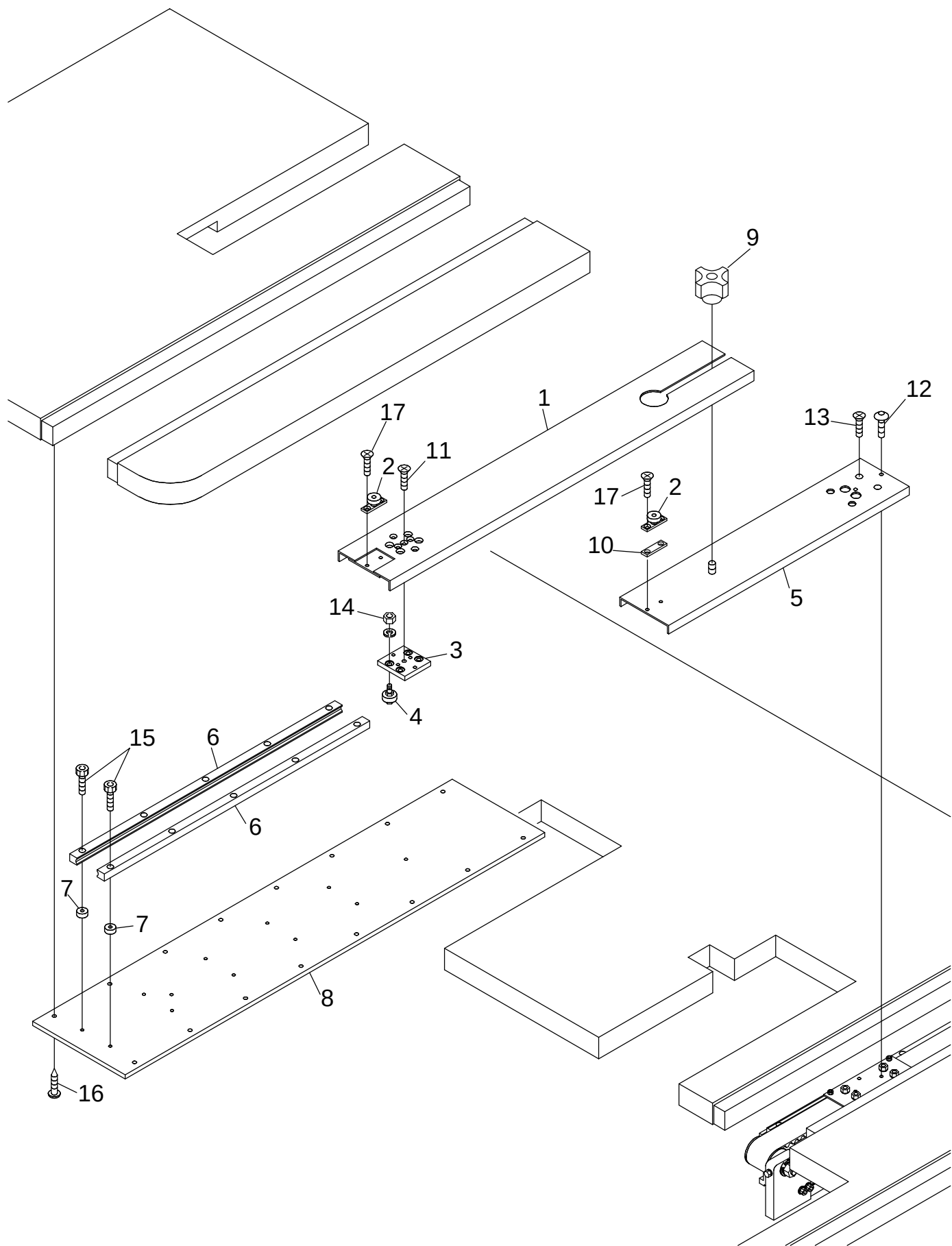
BENSME-ZN/ZQ
BENRME-ZN/ZQ

10C Pantograph Drive C (H-Drive)

(R=H-Direction Rail Qty)

[illegible]

10D PANTOGRAPH DRIVE D



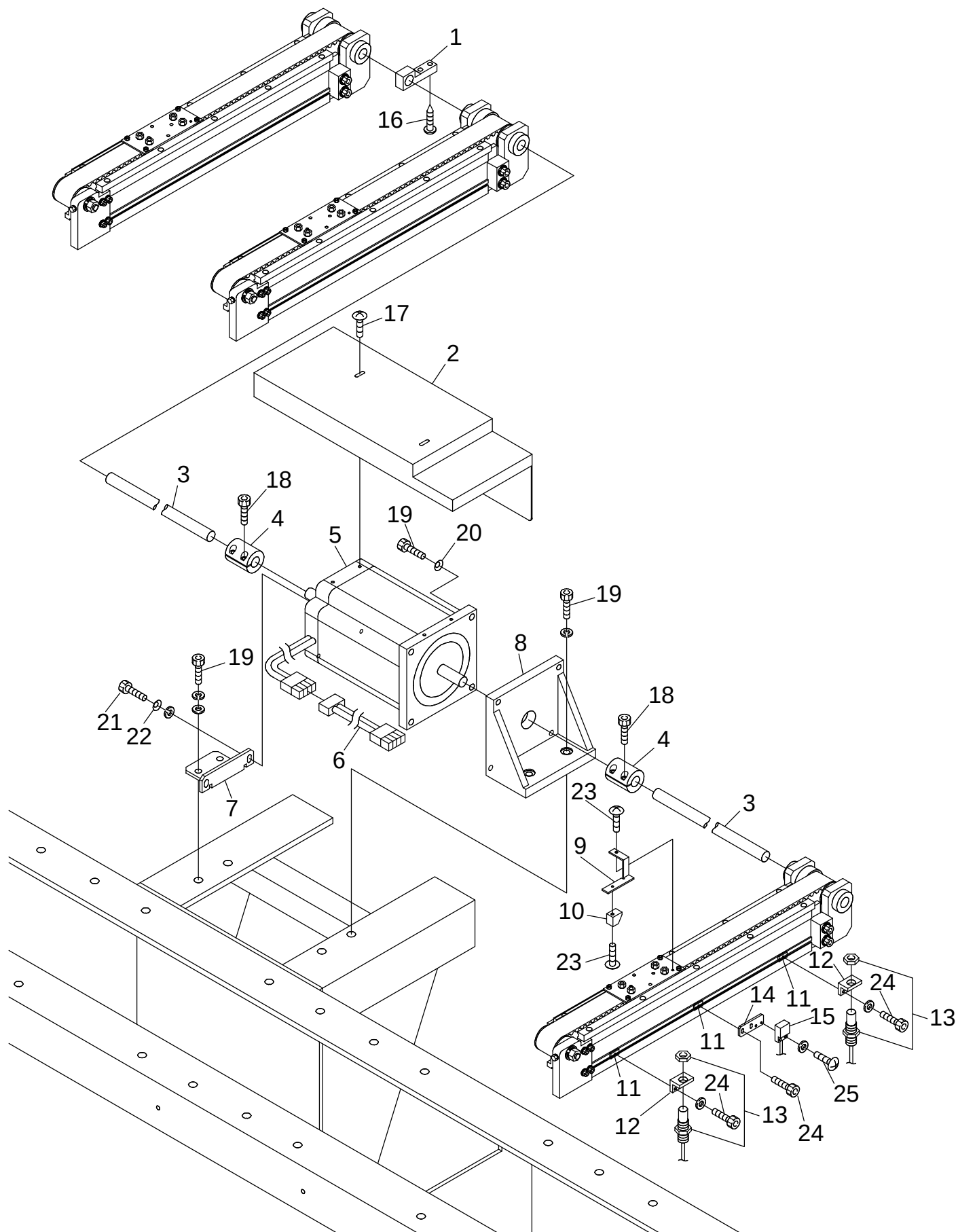
BENSME-ZN/ZQ
BENRME-ZN/ZQ

10D Pantograph Drive D

(R=H-Direction Rail Qty)

[illegible]

10E PANTOGRAPH DRIVE E



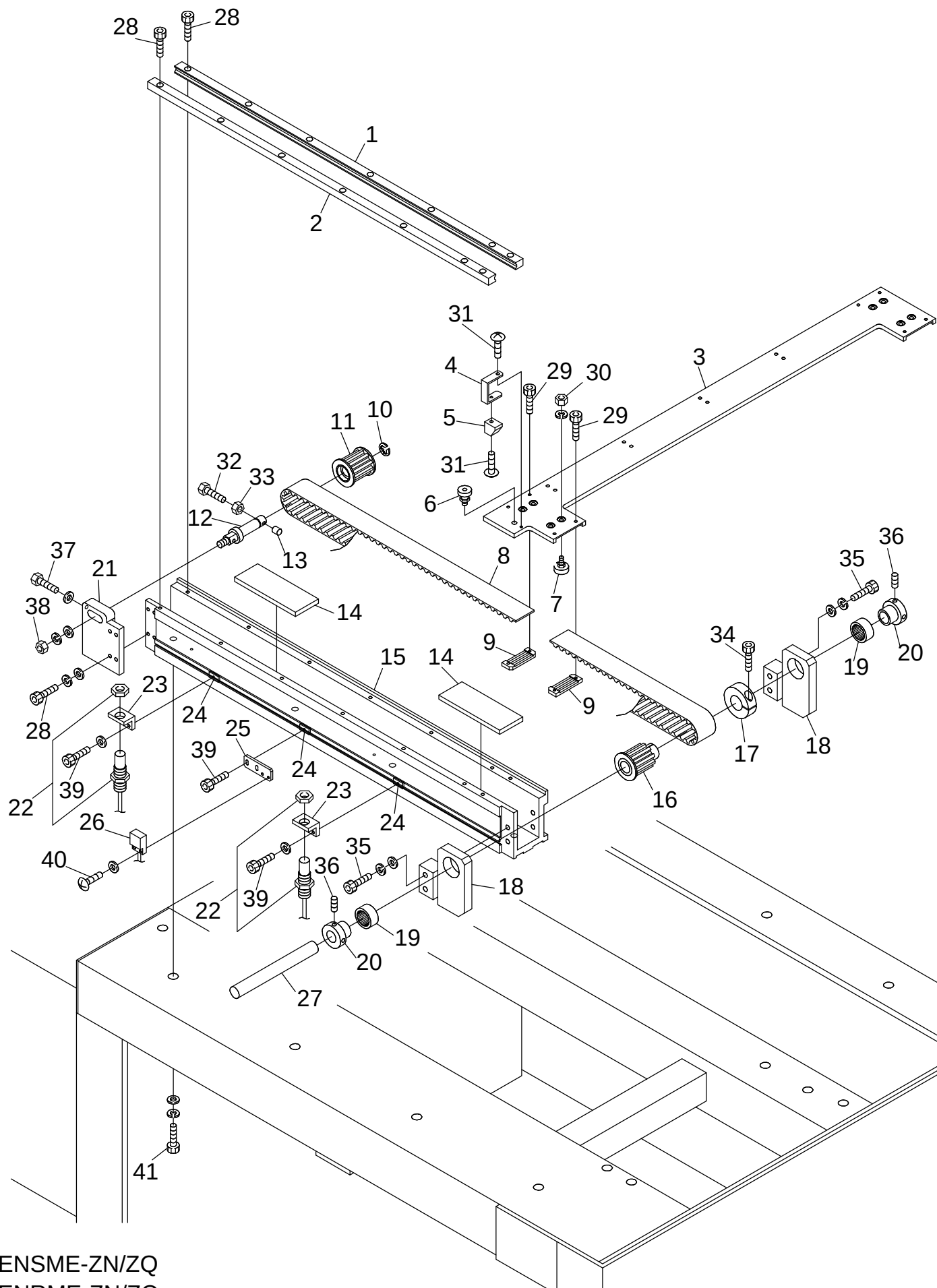
BENSME-ZN/ZQ
BENRME-ZN/ZQ

10E Pantograph Drive E

(*Depends on Machine Type)

[illegible]

10F PANTOGRAPH DRIVE F (V-DRIVE)

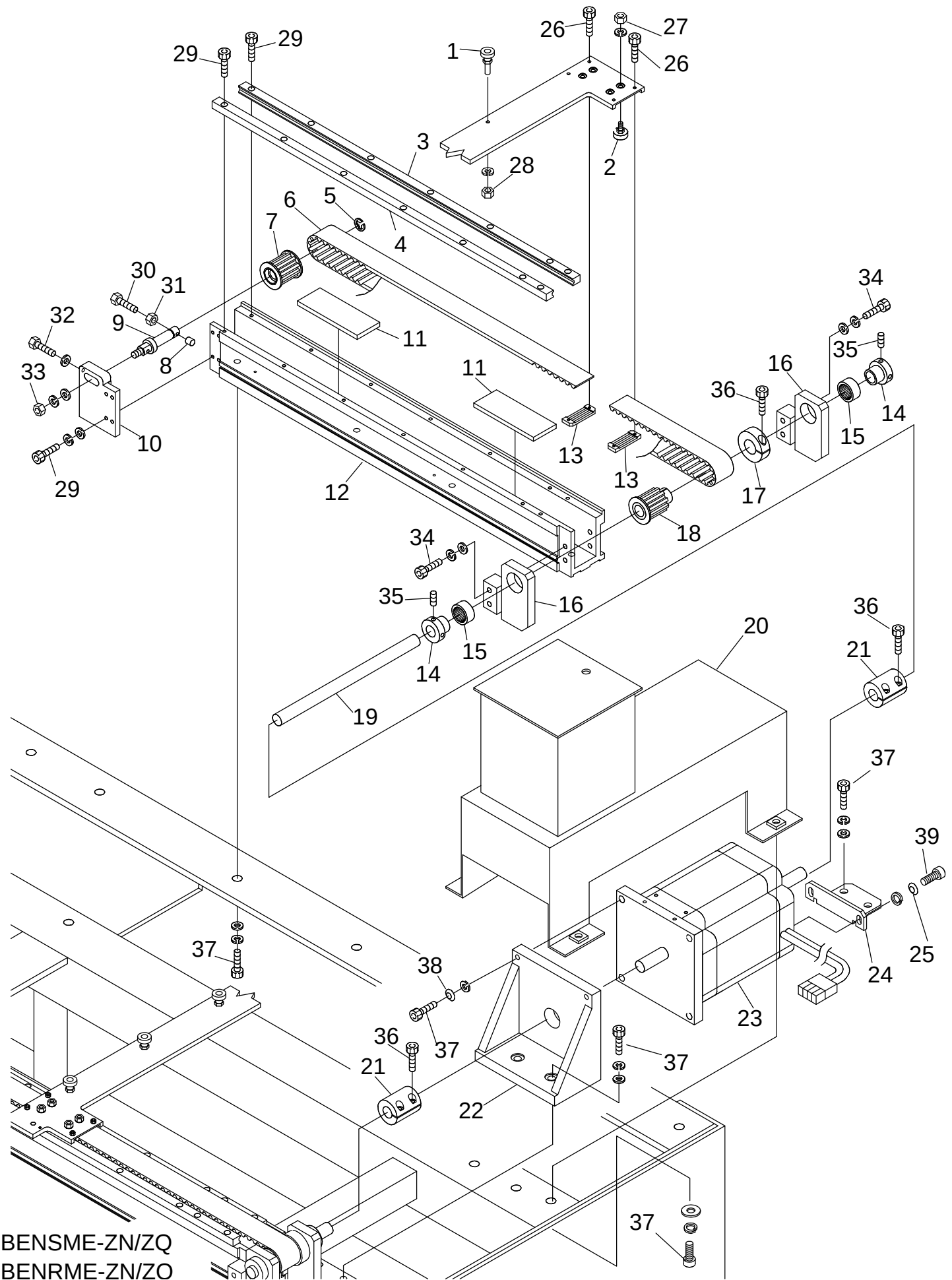


BENSME-ZN/ZQ
BENRME-ZN/ZQ

10F Pantograph Drive F (V-Drive)

ITEM	LIST NO.	DESCRIPTION	QTY	NOTE
1.	HP480540	V-Guide Rail, Right (560L)	2	
2.	HP480640	V-Guide Rail, Left (560L)		
3.	LA480150	V-Roller Base	1	
4.	LA450020	ZQ/ZNA V-Magnet Bracket	1	
5.	A9052030	Magnet (M-102A-02)	1	
6.	HP483370	Bearing Pin Assembly	1	
7.	HP482950	Roller Pin Assembly A	4	
8.	HV480110	V-Timing Belt (White, S5M)	1	Cut Product
9.	HP482940	Timing Belt Rack (5M)	2	
10.	A9012052	E-Ring (10.0 Dia.)	1	
11.	HV480050	Pantograph Driving Pulley (Front)	1	
12.	HH481991	Timing Pulley Shaft	1	
13.	HH482110	Pulley Shaft Bolt Cap	1	
14.	KN480061	Rail Base Felt (100x38x6)	2	
15.	A100515	ZQ/ZNA-380 V-Drive Assembly (605L)	1	
16.	HV480040	H-Drive Pulley, Rear (NS)	1	
17.	HH481980	Clamping Collar (19.0 Dia.)	1	
18.	LA480040	ZQ/ZNA Rear Pulley Bracket	2	
19.	A9011111	Needle Bearing (TLA2012Z)	2	
20.	HP321090	Lower Shaft Connecting Collar	2	
21.	HH482000	ZQ/ZNA Front Pulley Bracket	1	
22.	A9052079	Frame Limit Switch (RS-001)	2	
23.	MT460240	V-Switch Bracket (RS-001)	2	
24.	KU460270	Plate Nut (M3)	3	
25.	KN450300	Origin Sensor Mounting Bracket (MH-601A)	1	
26.	A9052031	Origin Sensor Magnet Switch (MH-601A)	1	
27.	KC320113	Driving Shaft (15 mm x 12')	1	Cut Product
28.		Hex Socket Bolt M4x15		
29.		Hex Socket Bolt M3x6		
30.		Hex Nut M5		
31.		Truss Screw M3x6		
32.		Hex Socket Bolt M4x35		
33.		Hex Nut M4		
34.		Hex Socket Bolt M5x18		
35.		Hex Socket Bolt M6x30		
36.		Hex Socket Set Screw M5x8		
37.		Hex Socket M4x25		
38.		Hex Nut M8		
39.		Hex Socket Bolt M3x8		
40.		Truss Screw M3x10		
41.		Hex Socket Bolt M8x25		

10G PANTOGRAPH DRIVE G

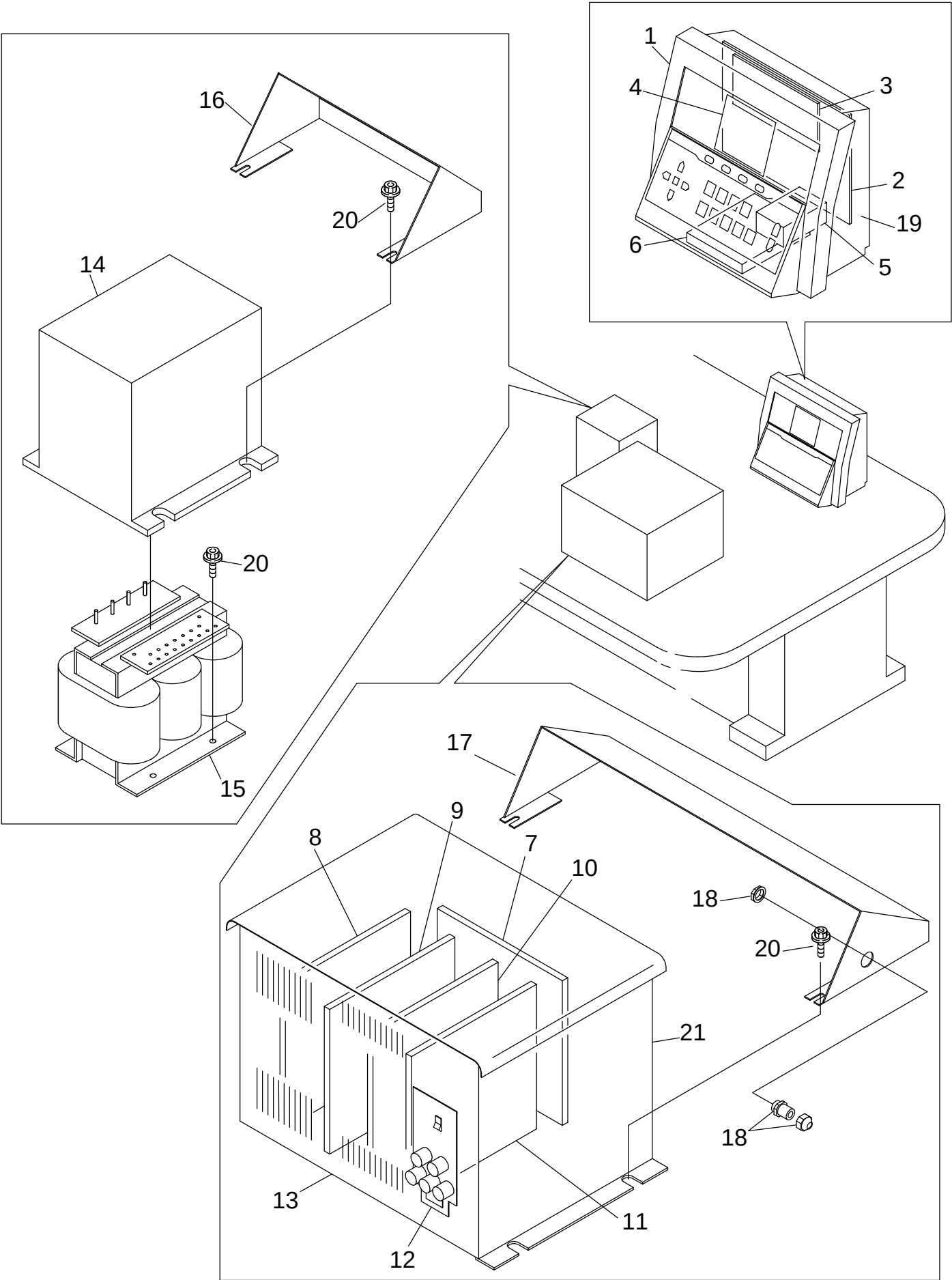


BENSME-ZN/ZQ
BENRME-ZN/ZO

10G Pantograph Drive G

ITEM	LIST NO.	DESCRIPTION	QTY	NOTE
1.	HP483111	Bearing Pin Assembly B	4	
2.	HP482950	Roller Pin Assembly A	4	
3.	HP480540	V-Guide Rail, R (560L)	1	
4.	HP480640	V-Guide Rail, L (560L)	1	
5.	A9012052	E-Ring (10.0 Dia.)	1	
6.	HV480110	V-Timing Belt (White, S5M)	1	Cut Product
7.	HV480050	Pantograph Driving Pulley (Front)	1	
8.	HH482110	Pulley Shaft Bolt Cap	1	
9.	HH481991	Timing Pulley Shaft	1	
10.	HH482000	ZQ/ZNA Front Pulley Bracket	1	
11.	KN480061	Rail Base Felt (100x38x6)	2	
12.	A100515	ZQ/ZNA-380 V-Drive Assembly, (605L)	1	
13.	HP482940	Timing Belt Rack (5M)	2	
14.	HP321090	Lower Shaft Collar	2	
15.	A9011111	Needle Bearing (TLA2012Z)	2	
16.	LA480040	ZQ/ZNA Rear Pulley Bracket	2	
17.	HH481980	Clamping Collar (19.0 Dia.)	1	
18.	HV480040	H-Drive Pulley, Rear (NS)	1	
19.	KC320113	Driving Shaft (15mm x 12')	1	Cut Product
20.	A100453	Automat Weldment (NS/NY), ZQ/ZNA	1	
21.	HH481931	Pulse Motor Coupling	2	
22.	HV480010	H & V Pulse Motor Support Casting	1	
23.	HV480060	NS Pulse Motor (TS3650N2)	1	
24.	HV480020	H & V Pulse Motor Support Bracket	1	
25.		M6 Lock Washers		
26.		Hex Socket Bolt M3x6		
27.		Hex Nut M5		
28.		Hex Nut M6		
29.		Hex Socket Bolt M4x15		
30.		Hex Socket Bolt M4x35		
31.		Hex Nut M4		
32.		Hex Bolt M4x25		
33.		Hex Nut M8		
34.		Hex Socket Bolt M6x25		
35.		Hex Socket Set Screw M5x8		
36.		Hex Socket Bolt M5x18		
37.		Hex Socket Bolt M8x25		
38.		M8 Lock Washer		
39.		Hex Socket Bolt M6x25		

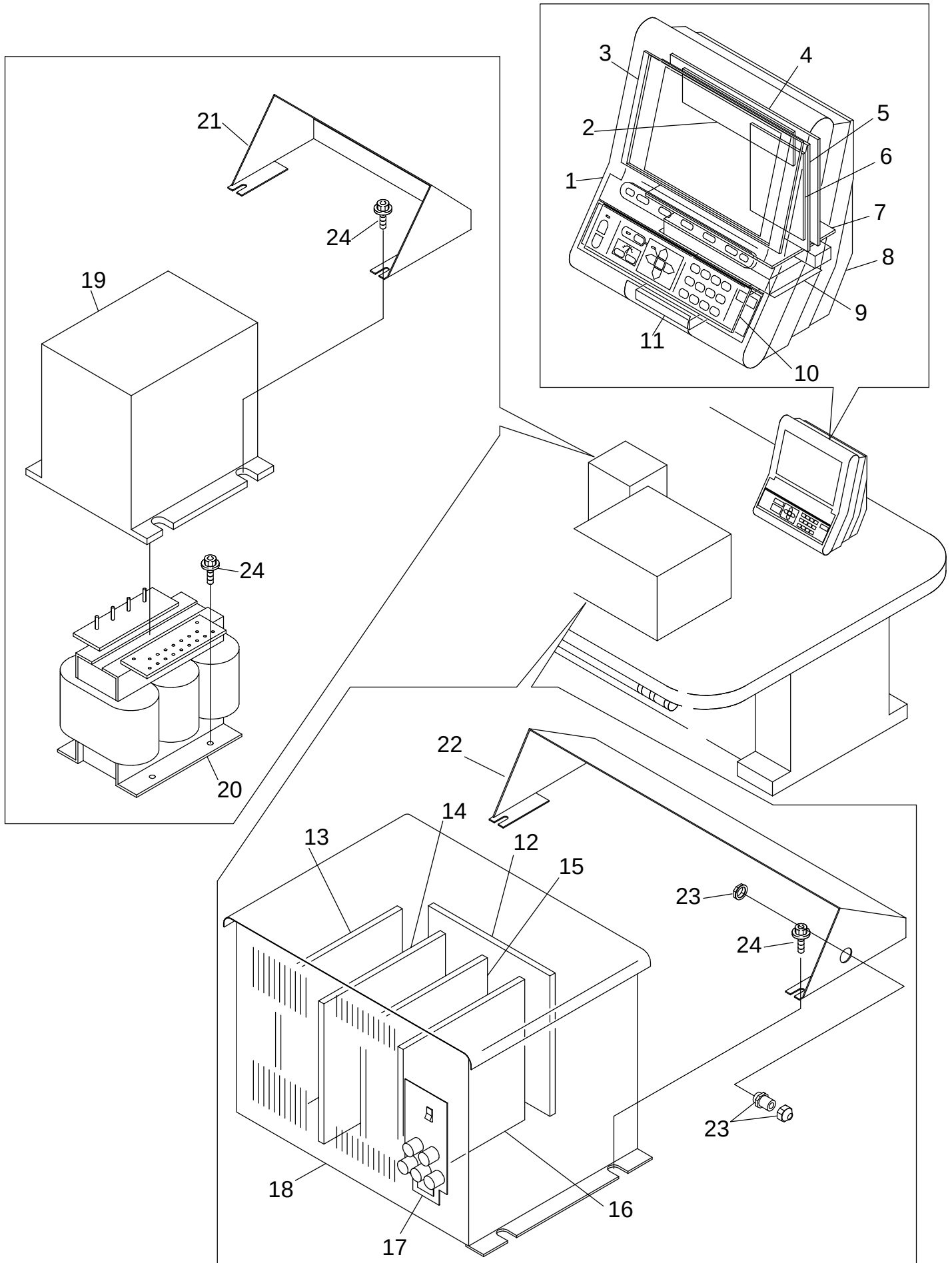
11A-1 CONTROL A (NS)



11A-1 Control A (NS)

[illegible]

11A-2 CONTROL A (NR)

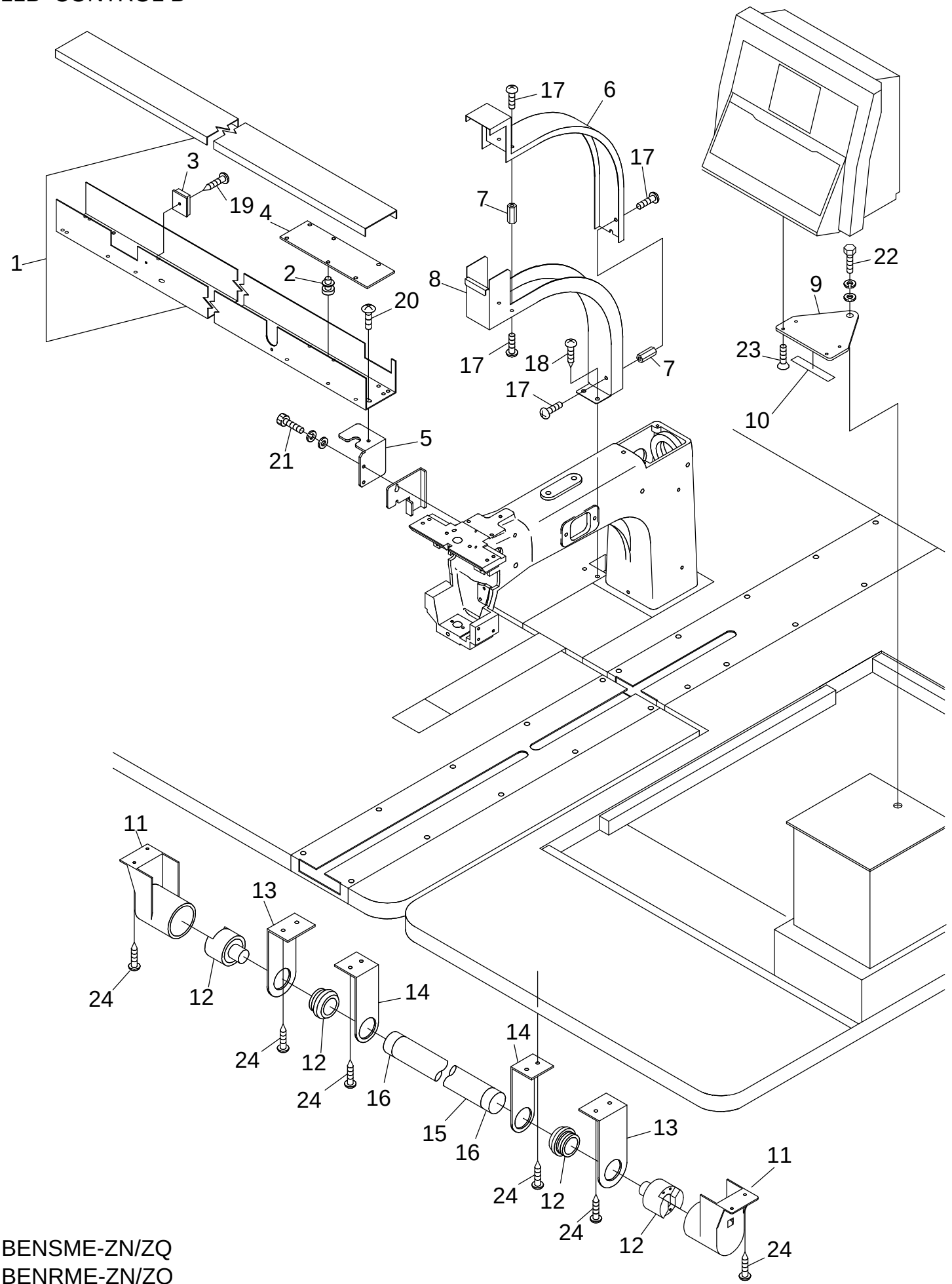


BENRME-ZN/ZQ

11A-2 Control A (NR)

[illegible]

11B CONTROL B



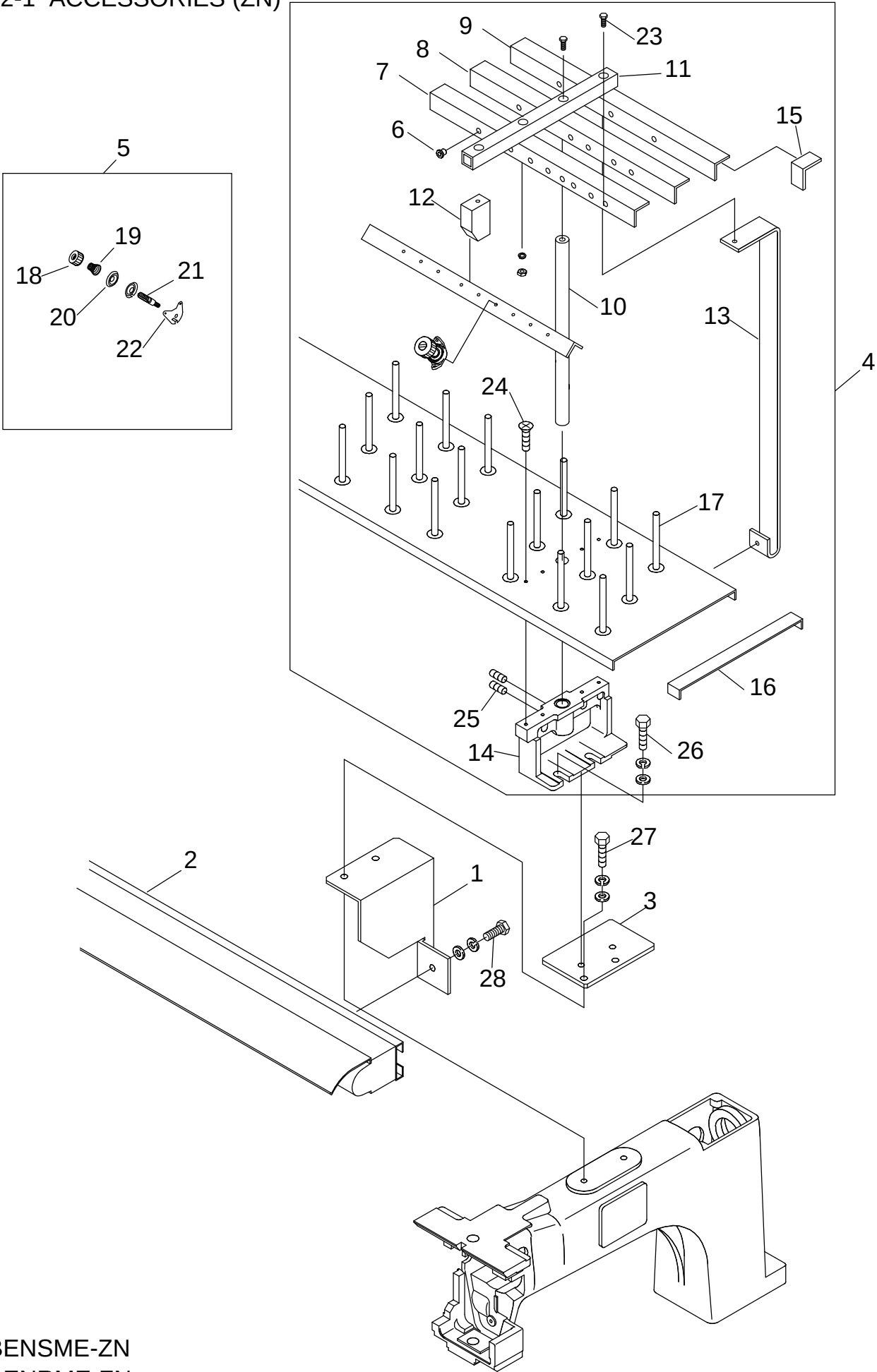
BENSME-ZN/ZQ
BENRME-ZN/ZQ

11B Control B

(H=Head Qty) (*Depends on Machine Type)

[illegible]

12-1 ACCESSORIES (ZN)

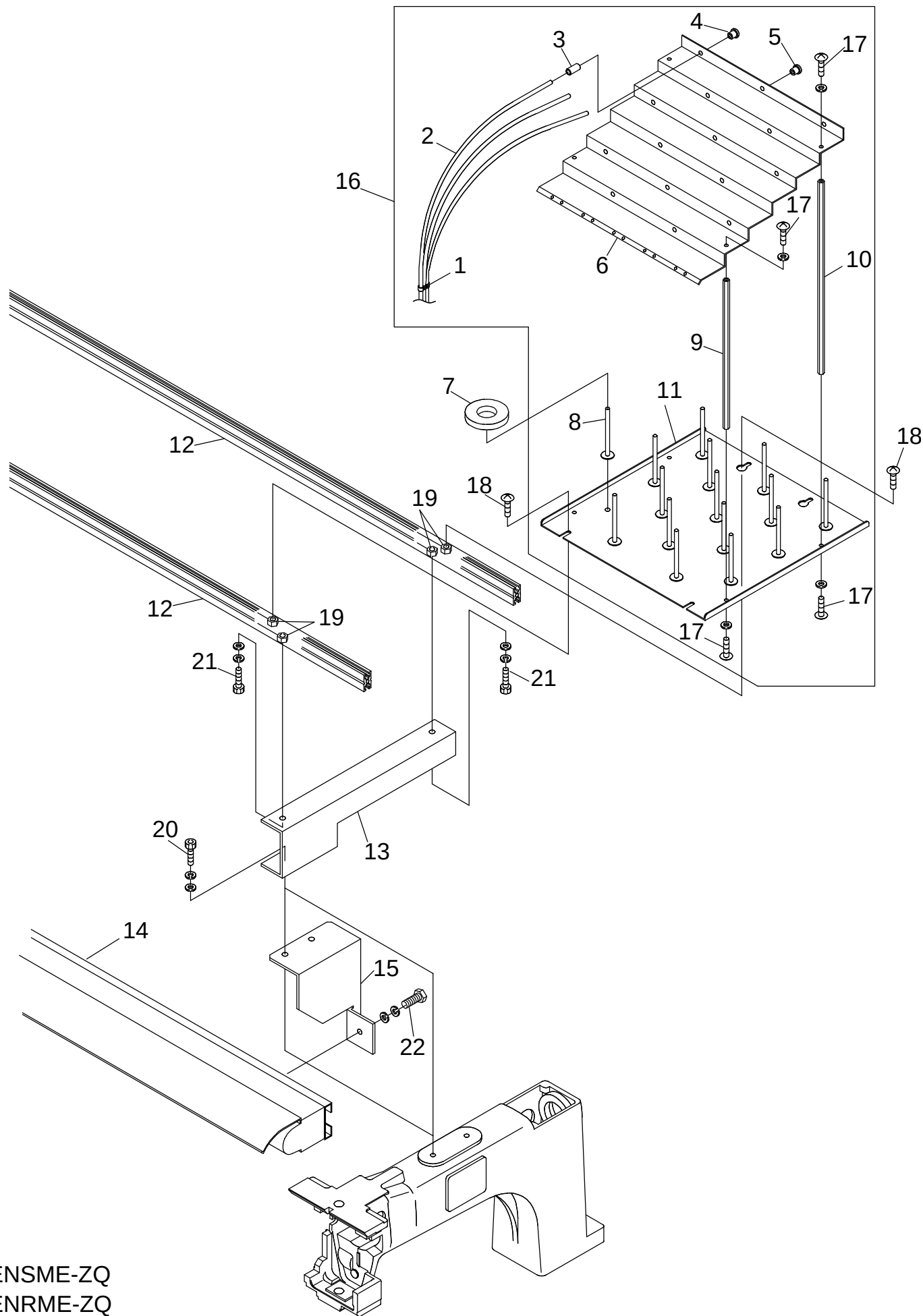


BENSME-ZN
BENRME-ZN

(H=Head Qty) (* Depends on Machine Type)

[illegible]

12-2 ACCESSORIES (ZQ)



BENSME-ZQ
BENRME-ZQ

12-2 Accessories (ZQ)

(H=Head Qty) (* Depends on Machine Type)

[illegible]